

The Cherry Hinton Survey

A report on the CNHS Survey project for 2009

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The Cambridge Natural History Society project for 2009 was a survey of the flora of some of the wildlife areas of Cherry Hinton, running from Cherry Hinton Brook to the Cherry Hinton Chalk Pits on Lime Kiln Road.. We logged over 500 plant species, more than double that previously recorded, and also recorded some other phyla. Each sub-unit was logged separately and individual record sheets for each area are available on the Society web pages. Many species were re-found from previous surveys. East Pit underwent a dramatic transformation during the year and it will be interesting to see how it develops over the coming years.

Over the past few years the Cambridge Natural History Society (CNHS) has selected a different area of the city and made regular survey visits to it over the course of a year. Primarily these surveys have concentrated on the vascular plants, however other phyla have been recorded on a casual basis. This year's survey covered Cherry Hinton Brook from Burnside to its source at Giant's Grave, the grounds of Cherry Hinton Hall and the Cherry Hinton Pits Local Nature Reserve (LNR), comprising of East Pit, West Pit and Lime Kiln Close. We logged separately the two lengths of Cherry Hinton Brook in different tetrads. Large parts of this area are City Wildlife Sites (CityWS), and are surveyed by the Wildlife Trust from time to time, primarily for indicator species. These surveys are usually carried out over one or two days every seven years by one or two people and do not provide a comprehensive list of what grows on the site, although that for East Pit was more comprehensive in the run-up to the Trust acquiring it and opening as an LNR on 2009 June 20. In addition, the CNHS had visited the chalk pits on several occasions in recent years, and had noted some species and others had been noted during conservation work. Information from these surveys and the Cambridgeshire flora was incorporated into our list of species to look for, although we failed to find roughly 17% of them. The following site descriptions are taken, with some alterations, from the Wildlife Trust's 2005 survey reports.

Cherry Hinton Chalk Pit SSSI

The Cherry Hinton Chalk Pit SSSI overlaps our survey area. It consists of East Pit, part of West Pit and some roadside verges, and was primarily notified for the populations of four nationally uncommon plant species : Moon Carrot *Seseli libanotis*, Greater Pignut *Bunium bulbocastanum*, Perennial Flax *Linum perenne* ssp *anglicum* and Grape-hyacinth *Muscari neglectum*; the last growing outside our survey area on the verge on the other side of the hill. All have a long history in the area with the first records being: *Seseli libanotis* "Cherry Hinton Chalk-pit Close, found by Mr Relhan and brought me.... Rev Mr Davies, Fellow of Trinity College, 26.8.1783". *Bunium bulbocastanum* "Went to Cherry Hinton, and found the *Bunium bulbocastanum* in a corn field on the south side of the road to the hill, going by the great chalk pit. 8.7.1840. Charles Babington.". *Muscari neglectum* "Hills nr Cherry Hinton, W.L.P.Garnons, 4.5.1825".

West Pit

West Pit was worked more recently than Lime Kiln Close (LKC), certainly well into the 20th century, but the majority of the 4.4ha site has experienced succession to scrub and ash woodland. The site generally climbs upwards to the south, where at the top there is an area of species rich chalk grassland. The western part of the site is leased to the Caravan Club. The area is noted as being important for birds and insects.

John Ray described “*Linum sylvestre radice perenni, flore caeruleo* [Perennial Flax, *Linum perenne*] in some closes about Cherry-Hinton, in large quantities”, and Jenyns noted in 1824 that “*Linum perenne* abounds everywhere about the chalkpits of Hinton, & appears very ornamental with its bright blue flowers. There is a succession of these all through the summer, and even now we found it in full flower- as well as seed.” but this year there were just a few vegetative shoots in the meadow at the top of West Pit. Ray also noted “*Orchis sive Cynosorchis purpurea spica congesti pyramidalis* [Pyramidal Orchid *Anacamptis pyramidalis*] in a chalkie close at Hinton near where they burn lime.” but it has not been seen here for over 100 years. Longleaf *Falcaria vulgaris*, grows on the boundary of West Pit, but is a more recent discovery: “WH Mills has known this for two or 3 years at this locality, before the turf was moved– verb. comm. to me at the Ray Club meeting at Sir Lionel Whitby's, 2.6.1951. DE Coombe”.

East Pit



East Pit is the newest addition to the nature reserve complex, having been acquired by the Bedfordshire, Cambridgeshire, Northamptonshire and Peterborough Wildlife Trust in 2008 and was opened to the public in June. After cessation of quarrying activities in the mid 1970s there was natural succession from a bryophyte dominated vegetation on thin

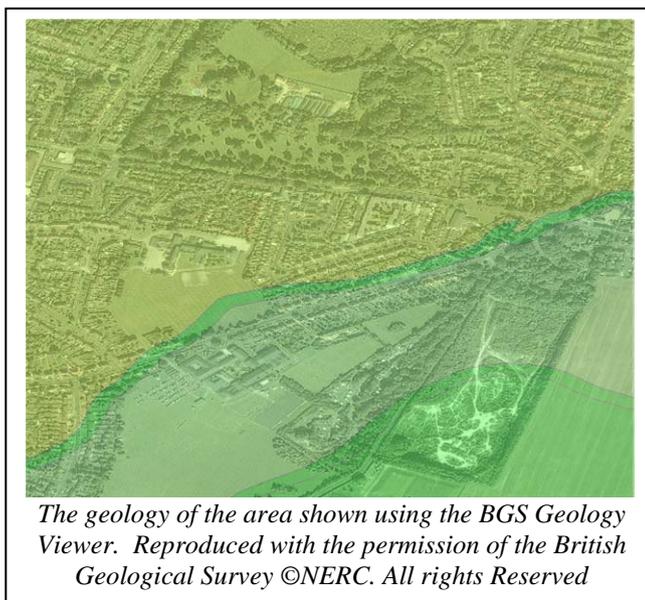
pulverized chalk, through chalk grassland into Buddleja and cotoneaster scrub. The “hills and holes” left by the quarrying operation were deemed unsafe for public access, and so the interior of the pit has been extensively landscaped to give several chalk bowls.

The extensive bare chalk thus created will be colonised by bryophytes and chalk grassland plants, together with invasive plants such as cotoneaster and buddleia that

will need controlling. Remaining bare patches will heat rapidly in the sun, providing basking areas in which insects and other invertebrates can rapidly raise their body temperatures, and thus be more active. Much of the surface of the pit was solid hard chalk, and it is hoped that the landscaping will have produced a softer, more open surface, which will provide more breeding opportunities for species of insect that excavate nest-chambers in soil, or lay eggs directly into its surface.

Geology of the area

The chalk pits are dug in Cretaceous Middle and Lower chalk dating between roughly 100 and 130 m.y.. The south (top) of East Pit is zig zag chalk, with the Melbourn Rock, which runs roughly through the middle and through the top of West Pit, forming the base of the Middle Chalk. The Holywell nodular chalk marks the top of the Lower Chalk and the Totternhoe Stone lies at the lowest level, the aquifer providing the source of Cherry Hinton Brook at Giant's Grave.



The geology of the area shown using the BGS Geology Viewer. Reproduced with the permission of the British Geological Survey ©NERC. All rights Reserved

North of this, Cherry Hinton Hall lies on the West Melbury marly chalk. The chalk either side of the Totternhoe Stone is commonly known as “clunch”. Although some of the formations do contain fossils we did not find any. We did find several pyrite nodules in East Pit, which fragment into radial shards when struck with a hammer.



Some bones found during excavation

Chalk Pit Archaeology

At the south end of East Pit lies the site of the “War Ditches”, an Iron Age monument partly obliterated by quarrying and construction of a reservoir on top of Limekiln Hill. The site was smaller than the nearby Wandlebury hill-fort and it may not have been completed before it was overrun and destroyed. A small section of the remaining structure was excavated by Oxford Archaeology East during the pit restoration. They found around 300 fragments of Iron Age pottery, along with human remains and Roman artefacts.

Lime Kiln Close

This site is a long abandoned chalk pit dating from mediaeval times. The pit, covering approximately 2.7ha, has steep banks along the eastern and southern boundaries and the floor of the pit has an undulating relief with many small hollows and chalky mounds. The habitat is a mosaic of high recent woodland, younger woodland and scrub, large clearings of sheltered neutral grassland with a calcareous influence in places, and exposed chalk especially on the steep banks. The site is bordered to the south by East Pit, and West Pit lies nearby to the southwest. It is managed as a nature reserve and is well used by local residents, but suffers from litter blown in from the road and dog excrement.

The recent woodland and scrub covers most of the site, and has a very good structure. The canopy is dominated by Field Maple *Acer campestre* and Ash *Fraxinus excelsior*, with a grove of Wild Cherry *Prunus avium*. Some trees may approach 200 years old. A wide range of shrubs are present, with Blackthorn *Prunus spinosa* and saplings of the canopy trees predominating within the high woodland, and some areas of scrub, particularly the south-east corner, dominated by Elder *Sambucus nigra* and Traveller's-joy *Clematis vitalba*. The diverse ground flora has a wide range of woodland plants such as Herb Robert *Geranium robertianum*, and the ancient woodland indicator Hairy St John's-wort *Hypericum hirsutum* which also grows in the clearings.

There are several large clearings of mostly neutral, species-rich grassland, with a tall and rather rank sward consisting mostly of species such as False Oat-grass *Arrhenatherum elatius*, Cock's-foot *Dactylis glomerata* and Hogweed *Heracleum sphondylium*. Several indicator species are present, including Yellow Rattle *Rhinanthus minor* and Agrimony *Agrimonia eupatoria*. In places mounds of chalk spoil have a more calcareous grassland, including Wild Basil *Clinopodium vulgare*, Wild Parsnip *Pastinaca sativa* and Wild Liquorice *Astragalus glycyphyllos*. Several other indicator species have been recorded in the recent past but were not recorded in this survey, including Salad Burnet *Sanguisorba minor subsp. minor* and Perforate St John's-wort *Hypericum perforatum*. The grassland is managed by annual cutting and raking.

A number of beetle species associated with deadwood habitats were found in intermittent recording work between 1995 and 1998; there has been no more recent recording work, but the habitat is essentially unchanged, and the beetles can be assumed to persist. The rare Chalk Screw-moss *Tortula vahliana*, which is of National Importance, has been recorded at this site since 1882; the reserve warden reports seeing it in 2002/3 around the exposed chalk of the southern steep bank. The site also supports a number of scarce but exotic species, including Yellow-flowered Teasel *Dipsacus strigosus* and Perfoliate Honeysuckle *Lonicera caprifolium*.

Botanical recording in the area has a long history. John Ray noted several species in his 1660 catalogue that are still there today. Examples include Wild liquorice *Astragalus glycyphyllos* "by the lanes side that leads to Cherry-hinton church and elsewhere", and which is still found in Lime Kiln Close. He also noted *Dipsacus minor sive Virga pastoris* Shepherds Rod, or small wild Teasel [Small Teasel *Dipsacus pilosus*], which Charles Babington also noted in Chalk-pit-close in his 1860 catalogue. Subsequent studies have determined the species in the chalk pit as Yellow-

flowered Teasel *D. strigosus*, and it did well this year, with some rosettes seen just outside the reserve.

Giant's Grave

This site comprises a small chalk spring-fed pool known as Robin Hood's Dip or Giant's Grave and the first section of Cherry Hinton brook to the north-west. The pool is surrounded by poor semi-improved grassland with scattered trees and scrub.

The pool water is approximately 20cm deep and there is much fine sediment covering the bottom. Aquatic macrophyte vegetation is very limited with a couple of patches of Watercress *Rorippa nasturtium-aquaticum*. Marginal vegetation is also sparse and includes Hard Rush *Juncus inflexus* and Yellow Flag *Iris pseudacorus*. Other species occur at the edge of the grassland and include Hairy Sedge *Carex hirta*, Common Fleabane *Pulicaria dysenterica*, Greater Willowherb *Epilobium hirsutum*, Water Figwort *Scrophularia auriculata* and Square-stemmed St John's-wort *Hypericum tetrapterum*. The pool contains a small tree-covered island with Hawthorn *Crataegus monogyna*, Buckthorn *Rhamnus cathartica*, Blackthorn *Prunus spinosa* and a Weeping Willow *Salix x pendulina*; the trees support much Ivy *Hedera helix*. On the southern and eastern side of the pool the ground slopes steeply up to the level of the adjacent road and path, while on the western side the ground is level and part of the floodplain.

The pool is surrounded by scattered broadleaved trees and shrubs over mown, poor semi-improved grassland. The trees and shrubs include frequent Ash *Fraxinus excelsior* together with a range of native and exotic species such as Elder *Sambucus nigra*, ornamental *Prunus*, Ginkgo *Ginkgo biloba* and Poplar *Populus* spp. Under the trees, the ground flora is dominated by ivy, Bramble *Rubus fruticosus* and Traveller's Joy *Clematis vitalba*.

The outflow of the pool to the brook contains a quantity of twigs, small branches and dead leaves. Access to the section of brook immediately to the north-west of the pool is not possible. In 1998 it was described as 10-20cm deep, 1-2m wide and fast flowing; this enlarges to 45cm deep and 2-3m wide beyond the road bridge at Forest Road. The brook is generally heavily shaded by trees and shrubs from the neighbouring gardens and significant stretches of bank are reinforced with wooden piling, particularly along the northern side. Aquatic vegetation is very sparse or completely absent along most stretches.

In the 1960's cold water flatworms were recorded, but these were not looked for during our survey.

Cherry Hinton Hall

Large parts of the grounds of the Hall are mown grassland with planted, often ornamental trees, and there are some tennis courts and play areas. The City Active Communities depot is adjacent to the Hall, and provides a good area of brownfield

site. A sub area is “wilder” and is a CityWS crossed by a number of well-used public paths.

This site is largely occupied by planted and naturally regenerating woodland around an artificial lake supplied by Cherry Hinton Brook. The woodland canopy density varies considerably in different parts of the site. There are areas of dense woodland in the northwest, north-east and south-eastern areas of the site whereas open woodland and clearings with a grassy flora are frequent in the western part of the site and around the northern arm of the lake. The woodland species composition contains a large complement of planted native and exotic broadleaved trees and shrubs. Although significant planting has occurred, the woodland is mostly semi-natural and there is a good regeneration of many species.

Today the lake supports a large population of waterfowl and is stocked with carp; aquatic vegetation is sparse and the water is turbid. The lake margin is reinforced with piling and the lake supports little marginal or emergent vegetation. Fifty years ago the setting was very different, and a report on the fauna of the aquatic habitats in the Hall grounds, published in an early edition of *Nature in Cambridgeshire* (No 3), records pondweed *Potamogeton* spp, Reed *Phragmites australis* and Yellow Flag *Iris pseudacorus* from the lake.

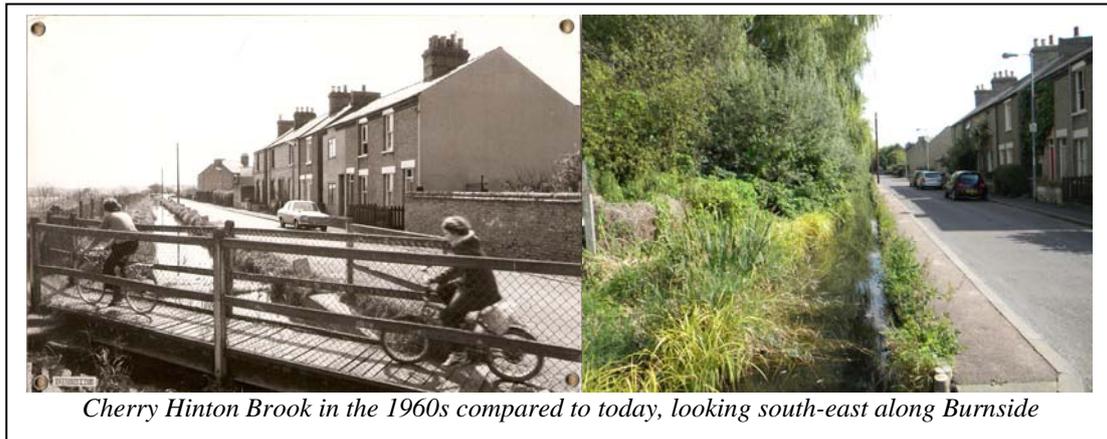
Cherry Hinton Brook not only supplies the lake but a separate channel forms the eastern boundary of the site. The extreme northern part of this site comprises a short section of the Brook on the north-western side of Daws Lane. This section is 3-4m wide, 40cm deep and fast-flowing, though the section beyond the trees is silted. A short stretch of the brook is shaded by bankside trees and shrubs and in other areas the banks are vegetated mainly by bramble. Aquatic vegetation includes Water-cress *Rorippa nasturtium-aquaticum*, Fool's Water-cress *Apium nodiflorum*, Water Mint *Mentha aquatica* and Water speedwell *Veronica anagallis-aquatica* agg.

Cherry Hinton Brook

The CityWS site is a stretch of chalk stream running from Daws Lane Cherry Hinton northwest for approximately 1.7km before being swallowed by a culvert just past Coldham's Lane, which takes it under the Cambridge-Ipswich railway. The brook is fed from Giant's Grave, and re-emerges from the downstream culvert as Coldham's Brook CityWS. A footpath runs along the top of the western bank for nearly the entire length of the brook, and the majority of it is tarmaced and used as a cyclepath. Beyond the eastern bank are flooded chalk-pit areas, including Cambridge University Officer Training Corps Pit CityWS. Beyond the western bank are allotments, gardens and a school playing field.

Some channel vegetation is cut annually from the brook, and the arisings dumped on the eastern bank, however this has been patchy in recent years. The bottom of the brook is rather muddy and silty throughout, with very little gravel. The water is not very clear, carrying quite a high load of fine detritus which coats much of the submerged vegetation.

As the Brook gently winds along its length it passes through more open sections to heavily shaded patches. The heavily shaded areas sustain little aquatic vegetation, but the more open areas range from being choked by sedges *Carex* spp, Reed Canary-grass *Phalaris arundinacea* and Fool's Water-cress *Apium nodiflorum* to beds of Water-starwort *Callitriche* sp with open water between. The banks have mostly coarse vegetation, but there are one or two areas verging on chalk grassland. In places pilings had recently been installed, and the bank behind these had a number of ruderal species. Some Water Vole *Arvicola terrestris* holes appeared active.

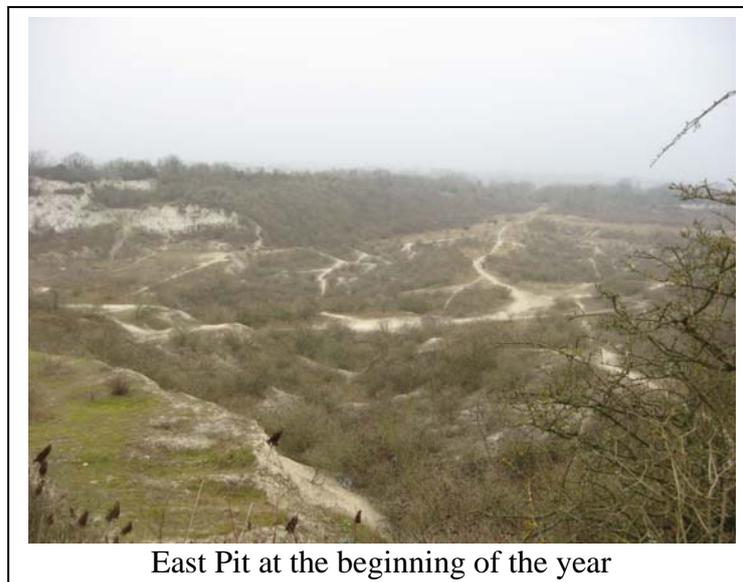


The final length of the Brook runs along Burnside, and this section has a shade problem from the line of Weeping Willow *Salix x sepulcralis* that grows above the eastern bank. Opposite-leaved Pondweed *Groenlandia densa*, which was one of the plants monitored for the Botanical Society of the British Isles “Threatened Plant Project”, has been lost from this section.

Diary for the year

The major contributors to the survey were: David Barden (DBa), David Brookes (DBr), Lizzie Cooke (LC), Monica Frisch (MF), Steve Hartley (SH), Alan Leslie (AL), David Seiley (DS), Jonathan Shanklin (JS) and Charles Turner (CT). Altogether 30 people participated in the monthly visits.

2009 January 1. The traditional New Year's Day outing took place under cold, cloudy but dry conditions. AL, JS, MF and SH first toured round Lime Kiln Close, where we added over 20 vascular plant species to the preliminary list, which was somewhat surprising given that we had made several summer visits here. The most notable find was a liverwort, *Radula complanata*. The group then moved on into East



East Pit at the beginning of the year

Pit, which had just had new fencing put up around the margin. At one place in the south-west corner we found seed heads of the Moon Carrot, for which the pit is designated as a SSSI. Visiting "The boulder", which hosts several liverworts including the red listed *Lophozia perssonii*, we found it encased in a sheet of ice, as were many of the exposed but shaded chalk boulders. Although we

did find two liverworts here, this didn't include the rare one. Our route back towards Cambridge took us along Cherry Hinton Brook, and then to Monica's house for welcome refreshments. The total for the day was 155 vascular plant species, along with a miscellany of birds, bugs, mosses, lichens and liverworts.

2009 January 2. JS and MF met for a follow up visit to cover West Pit and Cherry Hinton Hall, under similar weather conditions. Gentle progress through the Pit added a steady haul of species and uncovered the marker posts from a former nature trail. Monica had to leave at midday, but Jonathan continued to the top of the pit, where there is a chalk grassland meadow. In the afternoon a quick look at Giant's Grave, the source of Cherry Hinton Brook, suggested that we should add this small area to our survey schedule. Finally a walk round the Hall grounds produced the preliminary listing for this large area of public space. Over the two days we found a total of 196 vascular plants, something of an achievement for the height of winter.

2009 January 25. The weather was poor, with light rain getting heavier throughout the excursion, until it ceased just as we finished for the day. Despite this, turnout was good, with MF, DBr, DS, JS, CT and several others all getting very wet. We started by having a quick look at Giant's Grave, the springhead for Cherry Hinton Brook. We added several vascular plants to the list, and also tried our hand at a few mosses. As is frequently the case, the quick look took us past 2pm when we were supposed to be at Lime Kiln Close! We started with a few more mosses, then at 2:30, we made a start on the RSPB Big Garden Bird Watch. At this point everything had flown off or was in hiding, so we continued round the pit. JS positively identified a few liverworts, including *Radula complanata*, which was in fruit. DS showed us where the snowdrops were coming up, and this gave a good vantage point to see a pair of Chaffinch *Fringilla coelebs* in bushes. Going back into the pit we noticed the strong smell of Fox *Vulpes vulpes*. By now the Wood Pigeon *Columba palumbus* were

returning to roost, and we noted 9, confirming their status as one of the commoner birds around. Finally we had a quick foray into West Pit to confirm some ferns, which were all Male Fern *Dryopteris filix-mas*. Altogether we add half a dozen vascular plants, taking the total over 200, a good handful of mosses and three liverworts.

2009 January 31. A nice sunny, albeit cold, morning allowed the morning surveyors (JS, Louise Bacon, MF and SH) to meander round East Pit, primarily looking for lichens. We found 17, all common, as we weren't experts (in contrast the next day a visit round Wimpole Hall estate in company with the Bedfordshire recorder gave a total of nearly 100!). We also found another liverwort - *Frullania dilatata*, rather surprisingly growing on Buddleja, but a scarlet fungus growing on another Buddleja defied identification. We saw a flock of partridge in the pit, but weren't able to identify the species. In the afternoon the group was joined by DBr, DS, and several others for a gentle ramble round Cherry Hinton Hall. On the way Lily (our youngest participant) soon spotted some fungi, and we found another 10 in the Hall grounds. We added a few more lichens to the list, including some *Cladonia*. In the pond SH found a leech, which was much admired, although on later reading up on leeches we found that it could be one of dozens.

2009 February 28. A small party (JS, LC and MF) gathered at Burnside to walk along the Brook and began by trying to identify some mosses – Silver-moss *Bryum argenteum* was easy, but one found on the side of a wood piling lead to an unlikely possibility. Subsequently it turned out that having a moist specimen made all the difference and it turned out to be Wall Screw-moss *Tortula muralis*. Having managed to cover 500m in an hour we were joined by SH, and continued adding odds and ends to the list, before deciding it was lunch time. None of our first two choices for a pub did food, so we continued to the Robin Hood where we had a good welcome. The afternoon excursion covered Cherry Hinton Hall and we were joined by DS, Josephine Brearley and Pete Michna. Pete's expertise at identifying exotic trees in winter proved invaluable and he added a dozen species to the list. On a maple *Acer* sp near the Hall entrance we found over a dozen Orange Ladybirds *Halysia 16-guttata* nestled in crevices in the bark. From here we moved to West Pit, although the numbers dropped off. DS explained some of the recent work he had been doing as warden. At the top of the pit we hunted for the rare liverwort *Lophozia perssonii*, but were only able to find the rather common *Leiocolea turbinata* in mats on the chalk. With the light beginning to fade we returned, with MF providing welcome refreshments. Although the stated aim had been to try and identify bryophytes and lichens we ended up doing rather better on plants and added nearly 40 to the list, taking it to over 240.

2009 March 29. The morning group (JS, AL, CT, DBa, LC, MF and SH) met for a tour of East Pit, where the contractors had just started work, so there was no public access. Fumitories were coming up near the entrance, though at this stage we were reluctant to identify the species. On the eastern side we found the Greater Pignut starting to come up and noted several plants. We added quite a few common species in the body of the pit and noted two additional cotoneasters (*C bradyi* and *C dammeri*). The afternoon group was rather depleted, as four of the morning party departed across the border to Norfolk to see Yellow Star-of-Bethlehem *Gagea lutea*. JS and SH were joined by DBr and Rod Mulvey for a walk along Cherry Hinton

Brook. We didn't see anything exceptional, but spotted some large Roach *Rutilus rutilus* in the brook, a pair of Mute Swans *Cygnus olor* building their nest, and the fertile stem of a horsetail *Equisetum arvense* coming up. We also found a couple of dead creatures - a Short-tailed Vole *Microtus agrestis*, seemingly only recently deceased, and a couple of Toads *Bufo bufo*, which were very desiccated. With the clocks having gone forward an hour Jonathan had time for a quick tour of the remaining areas, finding Danish Scurvy grass *Cochlearia danica* on the road-side verge running along West Pit and the cross between Hairy and Sweet Violet *Viola x scabra* at the top of the Pit. Around another 30 plants species were added during the day, taking the total above 280.



East Pit in April after the landscaping

2009 April 26. Although the Met Office had forecast showers, JS's verdict was a less than 10% chance and we had a lovely spring day for the survey. The morning group (JS, David Price, Helen Holmes, LC and SH) again started with East Pit, which had been transformed since our last visit. The lumps and bumps had been dozed into three bowl shaped depressions of a glistening white chalk field. We found further sites for the

Greater pignut on the eastern side of the pit. SH collected some dandelions *Taraxacum* agg for later determination. We searched in vain for Common Spotted-orchid *Dactylorhiza fuchsii* but when we sat down at the chosen lunchtime location Steve pointed out "there it is". Helen and LC left to revise in the afternoon, but we were joined by DB, Lily and her mother for a wander round Limekiln Close. Here we found a recently cleared bank, where there was Star-of-Bethlehem *Ornithogalum angustifolium* and Wild Liquorice. We also saw several butterflies and Lily used her hand lens to look at a red spider mite. SH found the only recorded fungus of the day - a Common Morel *Morchella esculenta*. The party then crossed to West Pit, where Lily found a large assembly of woodlice, although the majority were Pill Millipedes *Glomeris marginata* (of which one was reddish brown) there was a Common Shiny Woodlouse *Oniscus asellus* amongst them. Once we got to the top, most of the party departed, but David P and JS had a look round, easily finding the Greater Pignut, and also finding Dog Violet *Viola riviniana* on a bank. David suggested looking round the caravan park at the base of the pit, which has an extensive network of bays cut into the old chalk workings. This added a further 15 species to the list for the west pit area. To finish the survey for the day, JS carried on till near sunset to look at the remaining areas, although he didn't find anything very exciting. The finds during the course of the day pushed the plant species list to well over 300.

2009 May 24 and 28. Both days were dry and sunny, something of a problem at East Pit, where "chalk blindness" was a distinct possibility. The Sunday visit (JS, David Price, MF and SH) was the last to the pit behind closed doors and revealed a good number of additional species, most notably Fine-leaved Fumitory *Fumaria parviflora*,

which had come up with Common Fumitory *Fumaria officinalis* in a freshly disturbed bank at the side of the pit. We also found a new cotoneaster for the pit - Entire-leaved Cotoneaster *Cotoneaster integrifolius*. On the Thursday we (JS, CT, DBr, MF and Sue Wells) had the first evening walk of the summer and started slowly to allow late comers to arrive, although the pace never picked up. Along the open section of the Brook we saw several Painted Lady *Vanessa cardui* butterflies, flying very fast and often quite high - part of the large migration that has spread north from the Atlas Mountains. Most of the botanical additions to the list were weedy species, although they often provoked debate on their identification. In total the floral total rose to over 380 species.

2009 June 25. A sunny summer's evening saw the stalwarts (JS, MF and SH) meet up for a visit to West Pit. Moving up through the woodland section we stopped to investigate invertebrates in amongst the leaf litter, finding ants, centipedes, millipedes, snails and woodlice. On a bramble leaf we saw a spiny larva, which on



Moon Carrot *Seseli libanotis* growing in East Pit

checking the ladybird sheet proved to be a Kidney-spot *Chilocorus renipustulatus*. Emerging at the top we turned to looking at the flowers of the meadow adding several chalk grassland species, including the Moon Carrot for which the pit gets its designation as a SSSI. The Greater Pignut was not visible, and there was no sign of the Perennial Flax, which we feared was now extinct at the site. Longleaf was still present at its usual site along the boundary with the school playing field, with a few plants some 10m further up the hedge. We returned via the road edge, which is protected road verge as it has a good population of the Moon Carrot, along with several other grassland species including Lucerne *Medicago sativa subsp. sativa* and Sainfoin *Onobrychis viciifolia*. There was just enough light for a quick look round Giant's Grave, where somewhat surprisingly we added several trees to the list. When combined with an earlier visit to Cherry Hinton Brook and Cherry Hinton Hall by JS, and a conservation work visit to LKC and East Pit by JS and SH the flora total rose to over 420 species.

2009 July 19. JS had a walk round the sites that the group wouldn't have time for on the Thursday evening, though several heavy showers made recording harder. He failed to find Opposite-leaved Pondweed *Groenlandia densa* in Cherry Hinton Brook, but did add a few common species. Cherry Hinton Hall provided a very interesting small area, where protective matting had been infilled with spoil from an unknown but probably fluvial, location. Here there were several goosefoots, Common

Fiddleneck *Amsinckia micrantha*, Water Chickweed *Myosoton aquaticum*, Water Speedwell *Veronica catenata*, Golden Dock *Rumex maritimus* and Annual Beard-grass *Polypogon monspeliensis*. Giant's Grave added Toad Rush *Juncus bufonius* and Brookweed *Samolus valerandi*, as well as both the small sweet grasses *Glyceria* spp. Entering West Pit a surprise find was Butchers Broom *Ruscus aculeatus*, and getting to the top of the pit the meadow had two different species of eyebright (*Euphrasia nemorosa* and *E. pseudokernerii*). Returning via the protected road verge there were three spikes of Knapweed Broomrape *Orobancha elatior* along with abundant Moon Carrot. JS added over twenty species in East Pit, including some more rare arable weeds such as Small Toadflax *Chaenorhinum minus* and Wild Pansy *Viola tricolor*. LKC added nothing new, but the Yellow-flowered Teasel is doing exceptionally well this year.



One of the East Pit glowworms.

2009 July 23. Showers were threatened and the team of AL, DBa, JS and MF did indeed get slightly damp at times, though it eventually turned into a dry evening. We carried out a sweep around the floor of East Pit, but failed to find the Basil Thyme *Clinopodium acinos*, which may have been disturbed by the construction works to the remodelled interior. We looked at several specimens of eyebright, but weren't entirely convinced as to whether there were one or two species in the

pit. AL re-found a cotoneaster and added another two new species for good measure, bringing the total reported from the two pits to 16. AL also found the hawkweed reported from the pit, but was not immediately able to identify it. The Moon Carrot was well in flower, though mostly on inaccessible cliff ledges. After dinner in the local pub, JS and MF returned to the pit, where we were joined by DS, Rosie Trevelyan and Sue Wells to hunt for Glow-worms *Lampyris noctiluca*. Having expected to see a dim light we were very surprised to see a brightly glowing green led which on inspection proved to be a female Glow-worm. The glowing lights were well scattered, mostly near scrub edges or on chalk edges, and a survey of the entire pit suggested a minimum of 45 active females - the highest count recorded so far. A quick look at the meadow in West Pit showed no activity at all, perhaps because there are distracting lights visible, unlike in East Pit where the pit wall shields off the worst of the Cambridge light pollution - indeed we had a good view of some of the summer constellations, with Jupiter low to the south. The two visits pushed the floral total over 450 species.



Autumn gentian in the species rich meadow at the top of West Pit. The meadow was created by scraping the surface to bare chalk and then strewing green hay from a nearby site.

2009 August 30. The return to Sunday visits allowed the morning party (AL and JS) to cover the Brook, Giant's Grave and part of Lime Kiln Close. Once again we didn't find the Opposite-leaved Pondweed that used to grow by Burnside, however we did spot a little Gypsywort *Lycopus europaeus*. The edge of LKC adjacent to East Pit added a few extras, including a rather obvious Rowan *Sorbus aucuparia*,

which we had previously managed to walk past without noticing. The afternoon party (joined by Jane Wilkerson, MF and SH) started with a look at a few of the more interesting areas of Cherry Hinton Hall, with Jane noting that she had seen Goldilocks Buttercup *Ranunculus auricomus* growing there earlier in the year. Moving on to West Pit, we progressed relatively quickly to the top, where there was a splendid display of Autumn Gentian *Gentianella amarella*. We also found a few non-flowering plants of the Perennial Flax. A slightly reduced party then had a wander round East Pit, noting a Pear tree *Pyrus communis* and a Gooseberry bush *Ribes uva-crispa*. Once again we failed to find the Basil Thyme on the floor of the pit, suggesting that the reconfiguration may have prevented its appearance this year, though it may reappear next year.

2009 September 27. Another warm, sunny day, with scarcely a cloud until towards the end of the day. After over three weeks without rain, everywhere was dry and dusty once the early morning dew had evaporated, rather ruling out the hope of finding many fungi. The morning party (JS, MF and SH) started with a look round Cherry Hinton Hall grounds, spotting a poplar near the entrance that had previously been missed. Having completed a circuit, finding very little new, we decided to finish with a look round the central compound, which proved more rewarding, with several new finds, including Indehiscent Amaranth *Amaranthus bouchonii*, Thale Cress *Arabidopsis thaliana* and Creeping Yellow-cress *Rorippa sylvestris*, showing the value of a brown-field site. We then had a quick walk round East Pit, with the most interesting find being another arable weed - Sharp-leaved Fluellen *Kickxia elatine*. For the afternoon we were joined by a couple of local ladies, and decided on a return to East Pit for a gentle walk round the access route. Here we showed a few of the chalk species still in flower, and tried to find a few creepy crawlies, though these too were lying low in the dry heat. We did manage to find Black Garden Ants *Lasius niger*, Yellow Meadow Ants *Lasius flavus*, the Garden Spider *Araneus diadematus*, an Orb-web Spider *Metellina segmentata*, a Common Field Grasshopper *Chorthippus brunneus* and the snail *Monarchis cartusiana*. A few of the party then continued round LKC and West Pit, finding a few rusts and mildews and some King Alfred Cakes *Daldinia concentrica*, and the Brown Ant *Lasius brunneus* in LKC.

2009 October 25. We had delayed the fungal foray weekend until the end of the month, in the hope of damper weather than over the past few years. We did not delay it far enough, as it was another dry autumn, and despite some rain in the run-up to the weekend, the ground was generally bone dry. The morning party had a look round East Pit. We confirmed one, added another and re-found a third vascular plant, but only found three fungi. Around a dozen gathered at Cherry Hinton Hall for the fungal foray proper, and it was clear that it was going to be a struggle to find much. Fortunately Lily, the youngest member of the group, had joined the party and her eagle eyes soon spotted a few specimens. The going remained hard however, though we did find a nice *Coprinus* at the edge of the pond. JS had decided a change of venue was needed, but on crossing a patch of bare ground near the Brook on the way back to the gates we saw a few mushrooms and patches of orange on the ground, which were later provisionally identified as *Pulvinula cinnabarina*. On the way to Lime Kiln Close we noted a nice patch of Shaggy Scalycap *Pholiota squarrosa* by an almond tree and a polypore on a cherry tree. Sadly Lime Kiln Close was no better, though we did find our largest specimen of the day, a rather gone over Blackfoot Polypore *Polyporus leptcephalus*.

2009 November 29. The weather forecast promised rain and we got it! The morning visit was cancelled, but JS and AL started at 1pm for a walk round East Pit, both having seen the brilliant blue of a Kingfisher *Alcedo atthis* whilst travelling alongside Cherry Hinton Brook. Three garden introductions were found by the gate, but we had barely started the circuit before the rain started falling. Apart from a patch of fungi on the bonfire site by the archaeological dig, nothing else was added. On returning to the gate we were joined by MF, and a little later by DS. The rain continued on and off and we managed to find several additional species of cotoneaster, though not all were immediately identifiable to species. Below the archaeological dig we found a large area covered with small discs of a bright orange fungus Orange Cup *Melastiza chateri*. AL spotted a Sweet Briar *Rosa rubiginosa*, and also Bristly Ox-tongue *Picris echioides*, which quite surprisingly hadn't made it on to the "to be found" list. With the light fading we retreated to join MF in her offer of a welcome cup of tea, thus concluding our survey of the Cherry Hinton area.

The 2010 survey is covering Coton Countryside Reserve and adjacent areas. The Reserve is owned by Cambridge Past, Present & Future, which has slowly been converting some arable land to public access meadows, though large areas are still a working farm. Although the present CNHS group tends to concentrate on plants, we make records of other organisms too and would welcome beginners and experts with other interests. Do come and join in. Dates for the monthly surveys, and flora lists for many of the wildlife sites near Cambridge are on the Society web page at <http://www.cnhs.org.uk>

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