

# Ditton Meadows Survey

## A report on the CNHS Survey project for 2008

*The Cambridge Natural History Society project for 2008 was a survey of the flora of the meadows from Stourbridge Common to Fen Ditton. We logged over 370 plant species, roughly 70% more than previously recorded, and also recorded some other phyla. Stourbridge Common and Ditton Meadows were logged separately across the divide of the railway line, on a tetrad basis. Individual record sheets for each area are available. Although many species were re-found from previous surveys, our conclusion is that the area is slowly degrading.*

Over the past few years the Cambridge Natural History Society (CNHS) has selected a different area of the city each year and made regular survey visits to it over the course of the 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 the meadows and adjacent "green" areas between Stourbridge Common and Fen Ditton. Large parts of this area are City Wildlife Sites (CWSs), 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. 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 (38 species). The following site descriptions are taken, with some alterations, from the Wildlife Trust's 2005 survey reports.

**Ditton Meadows** consists of four flood meadows on the south side of the River Cam, with drains, some hedges, and areas of adjacent scrub woodland, the whole covering approximately 15ha. The grasslands remain substantially improved. The southern and eastern fields are divided only partially by a damp ditch. The drains have a wide range of wetland plants. The whole site is cattle-grazed as one block over the summer. The far south-western corner of the site has grown up and largely lost its previously recorded drier grassland area to scrub. Similar flood meadows and ditches continue to the east beyond the city boundary, as well as a young woodland plantation, and Stourbridge Common CWS lies across the railway to the west. A cycle path was constructed across the meadows in 2004.

The grassland is very similar across the four fields, consisting mostly of an improved sward dominated throughout by grasses, such as Perennial Rye-grass *Lolium perenne*, Creeping Bent *Agrostis stolonifera*, Cock's-foot *Dactylis glomerata*, and in places by Creeping Thistle *Cirsium arvense*. The forb species are uninteresting. The only indicator species found was Hairy Sedge *Carex hirta*, which grows mainly in the wetter, lower, areas. These lie throughout much of the western field and around the boundary between the northern and southern/eastern fields. At times the western field has small areas of standing water. Other species in the wetter areas include Tufted Hair-grass *Deschampsia cespitosa*, Greater Pond-sedge *Carex riparia*, and Hard Rush *Juncus inflexus*.

The central and eastern ditch system has more interest. The ditches are 2-4m wide and total approximately 1000m in length. The water depth ranges from puddled mud to over 50cm. Grazing cattle have moderately poached their banks. They are largely unshaded. A broken hedge, 2-4m tall, runs along the western edge of the southern/eastern field, which becomes taller and denser at its western end where it runs beside the disused railway. Here the ditch dries out. Despite this shade, the section of ditch beside the lower portion of the hedge appeared to be the most diverse on the site at the time of the 2005 survey. In two 20m transects, 10 and 11 species of submerged, floating, emergent and wetbank vegetation were recorded. Sampling of the submerged and floating plants was not comprehensive so these figures are likely to be underestimates. The rest of the ditch system is filled in large part by Reed Sweet-grass *Glyceria maxima* and Greater Pond-sedge *Carex riparia*, with frequent Hard Rush on the wet banks, and other plants such as Lesser Water-parsnip *Berula erecta* being locally frequent. Towards the eastern end there is an area where the water is more open. Here Spiked Water-milfoil *Myriophyllum spicatum* was abundant and Stoneworts were found at the water's-edge in 2005. The ditch at the extreme east of the site is lined at its southern and eastern end, where it eventually dries out, by increasing scrub and mature trees, including several large Ash *Fraxinus excelsior*.

Coldham's Brook is mostly heavily shaded where it runs across the site, and channel vegetation is infrequent. A couple of the more exposed sections do have Horned Pondweed *Zanichellia palustris*.

The overflow ditch which runs along the western margin of the site, from Coldham's Brook to the Cam, is inaccessible and was surveyed from beyond a high fence. Nevertheless a diverse wetland flora was apparent, especially at the north end where the ditch has standing water.

The southern boundary of the southern/eastern field is a largely defunct hedge. At the western end it is tall and has thickened to a small area of dense scrub in the field's west corner. As the hedge runs east it thins and reduces in height, until at the eastern end it is thin and very widely scattered line of bushes. Much of the adjacent disused railway has been added to adjoining gardens. There has been surprisingly little spread of aliens from the gardens to the meadows.

The south-eastern corner of the site was largely inaccessible, and was mostly recorded from the footbridge over the railway. This area now has rank vegetation in the northern corner, dominated by Common Nettles *Urtica dioica* and Hedge Bindweed *Calystegia sepium*, merging into dense scrub of Hawthorn *Crataegus monogyna* and a suckering Elm *Ulmus sp.* in the central strip, and mature trees, including Ash, bordering the disused railway. This area was included in our 2008 survey, with several interesting species being recorded from the railway track, including Meadow Saxifrage *Saxifraga granulata*, Bloody Cranesbill *Geranium sanguineum* and Marjoram *Origanum vulgare*.



A CNHS group by the cycle path in the south-eastern corner of Ditton Meadows

A further meadow, which shows relict topography from the site of Ditton Hall, is on private land at the eastern end of the site. It is not part of the CWS, but is grazed with it. The hedge at the eastern margin is the boundary of the old track to Fen Ditton (Mentioned by Ray, although we only found three of the species he mentions for the lanes near Ditton). Several small copses have been planted in recent years, however the grassland is all improved. A few casual species appear to have been introduced in the north-eastern corner.

The Meadows are much used for exercising dogs, and there is occasional disturbance from scrambler bikes. The cyclepath, which was built after the 1998 survey and runs from Stourbridge Common along the river via a parapet under the railway, has increased the numbers of walkers and cyclists across the site. Despite this use the central part of the site is reasonably undisturbed – a Snipe *Gallinago gallinago* was flushed from the ditch between the northern and southern/eastern fields during the 2005 survey, and Grey Heron *Ardea cinerea* also regularly hunt along there.

**Stourbridge Common** is an area of cattle- and horse-grazed common land of approximately 16.3ha, with planted trees, mostly scattered but also in blocks on the south side. There is a playground at the western end. In 2008 the bulk of the Common was left ungrazed, and was mechanically cut at the end of September.

The main body of the sward still consists of a wide variety of grasses, with very few forbs other than weed species. The only frequent grassland indicator is Meadow Barley *Hordeum secalinum*, with Strawberry Clover *Trifolium fragiferum* locally frequent. A small, slightly better drained area near Garlic Row has Fiddle Dock *Rumex pulcher*. The sward has recently deteriorated over large sections of this large site. Heavy poaching due to grazing in the exceptionally dry periods of 2003 and 2004 permitted Creeping Thistle *Cirsium arvense*, Common Nettle *Urtica dioica* and other ruderal plants to become abundant over large areas of the site, before it was topped in the spring. Ground disturbance over much of the west end, due to electric cable laying in winter 2004, exacerbated the problem. Pernicious weeds remain a severe problem and will need treating for several years.

Several small, low-lying and wet, areas are apparent within the grassland, especially close to the track leading to the railway bridge; some have standing water. They have an inundation or wet grassland community, with frequent Hairy Sedge *Carex hirta* and rare Round-fruited Rush *Juncus compressus*. Although hybrid Sweet-grass *Glyceria x pedicellata* is frequent in these areas, Plicate Sweet-grass *Glyceria notata* is not, and its other parent, Floating Sweet-grass *Glyceria fluitans*, was not found on

this side of the railway. A larger area, on the south side of the site, has ankle-deep water and is mostly surrounded by broadleaved trees. This set of wetter areas includes some not found in the 1998 survey, and not all those found in that survey were apparent at the time of the 2005 survey.

The site is a good bat feeding area, especially around the trees where Pipistrelles *Pipistrellus sp.* are regularly seen. The site is used by numerous birds, wintering and breeding. Occasional Snipe *Gallinago gallinago* visit, especially in spring and autumn; the secluded southern wet area is a potential feeding ground. A flock of 33 Meadow Pipit *Anthus pratensis* were seen in winter 2004/5, and 8 males held territories in spring 2005; some were singing during the survey.

The river Cam runs along the northern margin of the area. It and its banks host many aquatic species.

## The Commons through the year

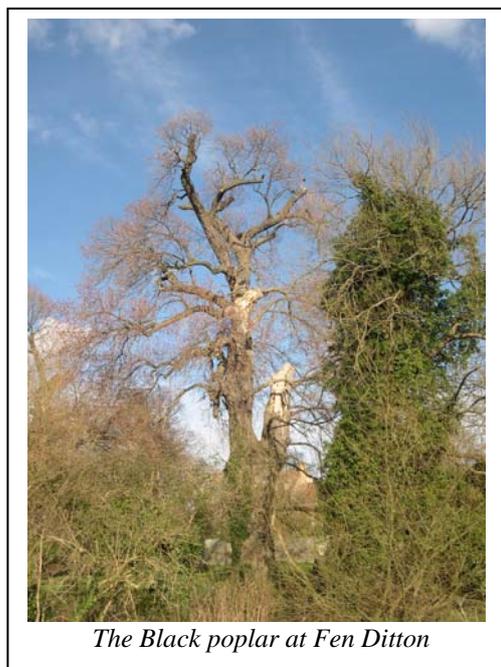


*Bloody cranesbill in flower in June*

**2008 January 1** was a mild day with Alan, Jonathan, Monica and Steve making the observations to celebrate the New Year. This preliminary survey found nearly 160 species, including over 40 new to the area. Most interesting of the additions were Marjoram *Origanum vulgare*, Shining Cranesbill *Geranium lucidum* and Bloody Cranesbill *Geranium sanguineum*. Marjoram has not been reported in this part of TL45 before, although Alan Leslie reported it from Chesterton sidings in 2001. Shining Cranesbill was last reported near the area in the 19th century. Bloody Cranesbill is rare for Cambridgeshire as a native, with Chesterton churchyard the nearest other non-native

location. Round-fruited Rush *Juncus compressus* was one of the scarcer re-found species. A couple of further visits over the following weekend were made to gain permission to access two of the private fields. A few additional species were noted, pushing up the total to nearly 170.

Although the weather forecast in the days leading up to the first formal survey on **March 30** had been threatening showers, we enjoyed one of the best days of the spring so far. The morning group met at the east end of Ditton Meadows for a look round the Ditton Hall field, where we found several garden escapes along the old hedge. On the way back Jonathan found Creeping Jenny *Lysimachia nummularia* under a damp hedge, a species last reported here in 1860. In the afternoon a dozen or so people met at Riverside, and started with a walk round the children's playground. Mostly we found common species, but there were still quite a lot of additions to the species list. Numbers had dropped a little by the time we crossed back into Ditton Meadows, but here we saw meadow pipits displaying, and at the Fen Ditton end saw a water vole in the lode. Just across the lode, an ancient Black Poplar was in flower. We added 36 plant species to the list, of which 18 were new to the area. There were many butterflies on the wing, and queen bumblebees were out looking for nest sites.



*The Black poplar at Fen Ditton*

**2008 April 27** The day dawned mild and sunny, and it was still bright when the botanical group met at 11am. It didn't last, and soon after the group (Alan, Dave, Jonathan, Lizzie, Monica) left the playground, showers started and continued until after lunch, which no doubt put many off. The most

exciting find of the morning was Meadow Saxifrage, growing along the old railway track, and some Perfoliate Honeysuckle *Lonicera caprifolium* by the track edge. Meadow Saxifrage was reported from the meadow by Barnwell pits in 1940, so perhaps this was the source. The group just managed to get to the 2pm starting point in time, and the slightly larger group continued towards Fen Ditton. One common species, last noted in 1860, was Black Medick *Medicago lupulina*. Several more escapes surfaced in the Ditton Hall meadow and we also found an Adonis Ladybird as well as a Harlequin. Having only found a small clump of Lady's Smock *Cardamine pratensis* by the old boat shed, we were delighted to find a large display in the dampest part of the Ditton Meadows. As we crossed the new bridge into Stourbridge Common an odd tree with long catkins caught our eyes. As Alan had left it required some thumbing through books to decide that it was Western Balsam poplar *Populus trichocarpa*. We added 45 plant species to the list, of which 31 were new to the area.

**2008 May 29** On a very wet evening the only two participants were Jonathan and Monica. Having made a start we continued round the ditch system as planned, steadily getting wetter, as despite noting the presence of brighter skies from time to time, the rain continued to fall, even though the 4pm forecast predicted dry conditions for Cambridge. We did make a few new finds, notably Curled Pondweed *Potamogeton crispus*, Toad Rush *Juncus bufonius* and Narrow-fruited Watercress *Rorippa microphylla*, and re-found the Water Violet *Hottonia palustris*, last seen in 1998. Not surprisingly little in the way of animal life was around, and we made no other records. Jonathan had made a couple of visits earlier in the week, covering the parts of the area that we weren't likely to have time for, and in total around 40 species were added to the list, just under half of which were new records.

**2008 June 26** Around a dozen people gathered at the riverside entrance on a pleasant summer evening, though Jonathan predicted that he would be surprised if it wasn't raining by 8pm. He wasn't! We began by looking at the river in the corner of the Common, and found several water weeds, with grasses on the bank, and discussed identification features. An unusual duck was spotted on the river, an immigrant from America, the Wood Duck *Aix sponsa*. The party slowly moved up the riverbank, splitting into two groups, with one focussing on the flora, and the other the fauna. The fauna group had brought a stick and umbrella, beating trees and catching insects in the umbrella, which also proved useful later in the evening! By the time we reached the first bridge, rain drops were falling, and the majority of the party called it a day, however five stalwarts continued round the circuit. In a muddy area Alan Leslie found the two Watercresses *R. nasturtium-aquaticum* and *R. microphylla*) growing side-by-side. Generally however broad-leaved plants were few and far between on the bulk of the Common, suggesting use of chemicals at some time in the recent past. A final significant find was an unusual bramble which Alan hadn't seen before, which had pink flowers and hairy stems, and seemed to be a cross between Himalayan Giant (*R. armeniacus*) and something else. Altogether we added or re-found around half a dozen species during the visit, and Jonathan had added a dozen more on a visit to Ditton Meadows earlier in the week, which brought the total species to over 300. One of these earlier additions was Greater Spearwort *Ranunculus lingua*, although on a subsequent visit it emerged that there is some doubt as to its exact status in the ditch system.

**2008 July 31** Nine people gathered at the central entrance to Ditton Meadows on a rather grey evening, with rain once again in the air. An item in the Cambridge Evening News had brought along two visitors to Cambridge who thought it sounded an interesting event. We proceeded clockwise round the Meadows to the central ditch system, remaining on the south side. As we were concentrating on the ditch vegetation, Jonathan Shanklin tried dipping for pond weeds using a walking stick brought along for the purpose. This was successful in bring up bits of Water Violet roots, and also a new addition of Canadian Pondweed *Elodea canadensis*. David Barden showed us the sole plant of Square-stemmed St John's Wort *Hypericum tetrapterum* at one end of the ditch system. Although biting insects were plentiful, not much else was on the wing given the weather, although Black Slugs *Arion ater* were frequent. As it grew dimmer, the rain increased and only David Seiley was prepared to try detecting bats. Jonathan had visited Stourbridge Common earlier in the week, he and David also had a look along the river bank the previous day, in rather nicer weather and Jonathan paid another visit, again rain affected, on Friday evening. All told these visits brought the total floral species to over 350.

**2008 August 31** Despite the threat of heavy thunderstorms, the weather remained largely dry, albeit sultry throughout the day. The morning botanical group had a look round Stourbridge Common, finding several new species, including Trifid Bur-marigold *Bidens tripartita*, last reported here in 1860, a couple of bird seed aliens, the hybrid between Curled and Broad-leaved Dock *Rumex x pratensis*, and that between Raspberry and Dewberry *Rubus x pseudoidaeus*. A party of six gathered at the Fen Ditton

end of Ditton Meadows for a broader look at the wildlife. We introduced the beginners to the variety of Dandelion like flowers, which are in fact all different species (Smooth Hawksbeard *Crepis capillaris*, Autumn Hawkbit *Leontodon autumnalis*, Dandelion *Taraxacum officinale* agg and Corn Sow thistle *Sonchus arvensis*). Several species of butterflies and dragonfly were on the wing and towards the end of the excursion we found an Ivy bush *Hedera helix* in flower, covered with hoverflies and wasps, making the most of the nectar source. A rumble of thunder suggested it was time to go home, but a closer inspection of a gravelled plot, passed over by Alan and Jonathan in the morning, threw up several new species, with the confusingly similar Hawkweed Ox-tongue *Picris hieracioides* growing alongside the much more common Bristly Ox-tongue *Picris echioides*. The rain then began to fall and the party dispersed rapidly!

**2008 September 28** Summer finally arrived in late September, and the weather was warm and sunny, at least till thicker cloud came in late in the day. The morning group took a leisurely view of the north-east corner of Stourbridge Common and the south-west corner of Ditton Meadows, but didn't find anything new. Numbers at the meeting point by the children's playground in Stourbridge Common slowly increased and we ended up with around ten participants for the final exploration. New plant species were few, but while explaining that perching birds often introduced species such as Gooseberry *Ribes uva-crispa* and Cotoneaster inside some of the tree guards by the river, Jonathan spotted Pellitory of the Wall *Parietaria judaica* adjacent to a Cotoneaster. With several of the ARU students having an interest in invertebrates we did rather better at finding new species, with a selection of galls, spiders and ladybirds. The stridulation of Roesel's Bush-cricket *Metrioptera roeselii* was much in evidence, and the cyclists tried to encourage them to louder efforts! [They sound a bit like a cycle free-wheeling]. As we returned across Ditton Meadows we met up with three young lads on their mountain bikes (one looking very much the worse for wear, having come off the BMX track the day before), who asked us what we were doing. They volunteered that they had found some orange mushrooms, and led us to them. They turned out to be Golden Scalycap *Pholiota aurivella*, growing on Ash. Heading back to our starting point, we kept looking for further species, but with the sun rapidly setting found nothing more.

Our expectation that these flood meadows were unlikely to prove as diverse as Coldham's Common, and that we should find some interesting water plants in the extensive ditch system of Ditton Meadows proved correct. It was disappointing how poor the majority of the grassland area was, and it is clear that they had suffered considerably from "improvement". One particularly unwelcome alien invader, found both in Coldham's Brook and the River, was Floating Pennywort *Hydrocotyle ranunculoides*. Although steps are being taken to control it, it seems likely to spread.

Many people came out on the monthly excursions, with the principal contributors being David Barden, Monica Frisch, Steve Hartley, Alan Leslie, David Seilly and Jonathan Shanklin. With nearly 380 vascular plant species or sub-species being recorded we greatly increased the number of species known from the Common. It is however unlikely that the list is complete, as even after the formal close of the survey in September an additional species was found during conservation work.

The 2009 survey is covering Cherry Hinton brook, Cherry Hinton Hall grounds and the Cherry Hinton chalk pits. The Wildlife Trust has just acquired the East Pit, and will have carried out extensive works over the 2008/9 winter, so it will be interesting to see what has changed since our occasional visits of recent years. With a wider variety of habitats than the Cambridge commons surveyed last year, we should find more species. Although the present 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>

Jonathan Shanklin & Steve Hartley