

Duchess Park



Bee Orchid on Duchess Park

History and Natural History

Volume 2 - Natural History Introduction

(A work in progress at June 2017)



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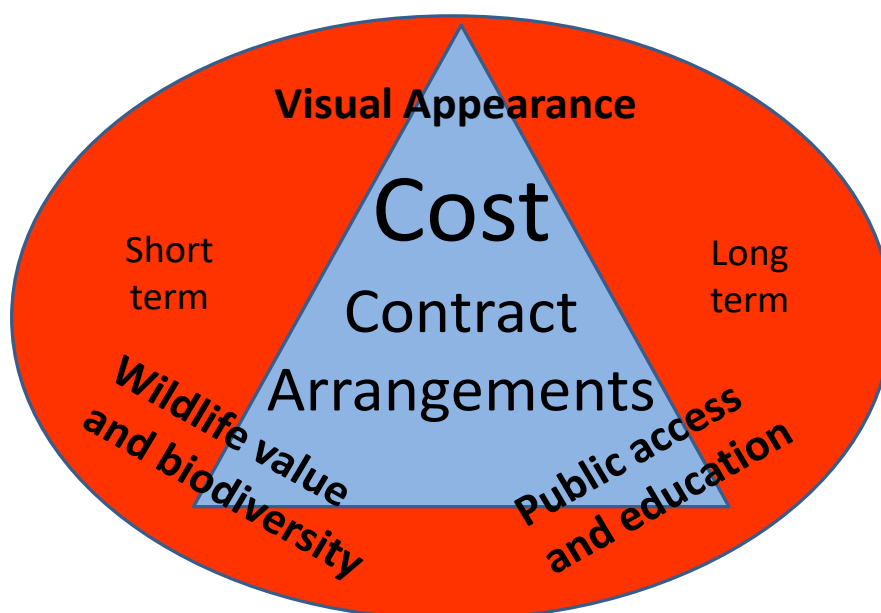
Chapter Three - Natural History introduction

The site was developed by David Wilson Homes (acquired by Barratt Homes) between 2007 and 2010 within a planning brief which sought to preserve elements of the former rough grazing and scrub. This supported a mixed bird fauna together with deer. Surveys conducted prior to development show a mixed flora, some areas quite poor but with some parts relatively rich in wild flowers. Apart from deer there were no clear records of larger wild mammals. There were some rough paddocks previously used for horses or ponies.

The wildlife value of the site is undoubtedly greater due to its proximity to the seventeen acre plantation to the south and various remnants of former orchards to the south east and south west of the site. Apart from the value of the site for its own flora and fauna its value in providing continuity and connectivity with respect to adjacent land was recognised by surveys and planning guidance.

The decision by planning authorities to insist upon the preservation of open areas; creation of an area with play equipment; and the formal designation of a public footpath for public enjoyment increases the sites community value while adding a further dimension to discussions about its long term maintenance. The open spaces have remained in the ownership of the developers but the cost of that maintenance will fall to the owners of properties on the development. The exact nature of any contractual arrangements for maintaining and improving the site are under consideration by residents and an active Residents' Association. Consequently residents have to weigh up issues of cost, wildlife value and public access while also having views on what constitutes a satisfactory aesthetic appearance. The balance between 'manicured' and 'wild' areas remains a hot topic. Individual views on what this balance will look like have caused debate. The elements of this search for a balance are encapsulated below.

The challenge



The flora and fauna recorded so far, combined with good reference sources allow some inferences to be drawn concerning the beneficial maintenance and development of the site to enhance its habitat value. Later chapters show some helpful habitat correlations between flowering plants, grasses, trees, and the butterflies, moths and bees which depend upon those food sources. This must inform discussion. The site contains areas which, albeit modest in scale, represent three of the classic wild life habitats. These are gardens and parkland; meadow and ; woodland.

Meanwhile the extent and timing of site maintenance, particularly mowing, should be sensitive to the flowering and seeding of local flora and the breeding cycles of the fauna, particularly moths and butterflies. Residents have a great opportunity to ensure a sympathetic long term approach to the site's habitats, ecology and biodiversity.

Features of Duchess Park open spaces

The site has a variety of habitats but the two major types are *semi-improved calcareous grassland* and *scrub*. These are formal descriptions recognised by ecologists throughout the UK. Neither of these sounds very flattering but each has very positive characteristics.

Semi-improved calcareous grassland

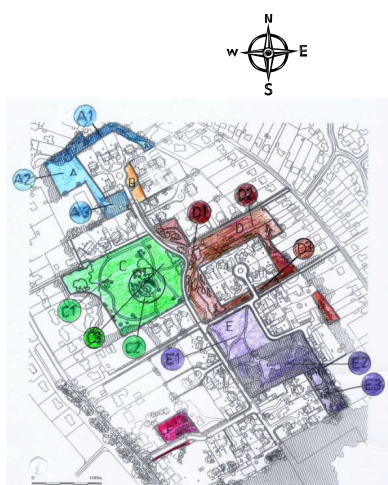
Semi-improved means having had very limited treated with artificial fertiliser or grazing so nutrient levels are relatively low. *Calcareous* simply means grassland on a chalky soil. These conditions favour chalk loving wild flowers although the grasses still need to be managed and cuttings removed if flowering plants are to thrive. Indicator species include vetches.

Scrub

Scrub is the term applied to a habitat where natural *succession* from unmanaged grassland has allowed shrubby plants and small trees to become established. In turn, over time, if unmanaged, the *scrub* would transition in to *woodland*. Indicator species include hawthorn, hazel and bramble. This habitat is generally attractive to birds and rabbits. More open sunny spots will be attractive to bees and butterflies.

Area designations

For convenience, primarily in planning the maintenance of the site, the open space has hitherto been referred to as a number of areas (A to G), some divided further into sub-areas. Areas are fine for administrative functions but simply using letters and numbers paints no picture. Painting a picture or telling a story brings the areas to life. Bringing them to life increases the chance that residents and users will engage emotionally. It is the emotional engagement that will help residents and visitors to care about how the site is used and nurtured, increasing enjoyment and avoiding abuse or neglect – even though caring for the site will cost money in perpetuity. What follows are my suggested names which I feel are rather descriptive.



Here those *area labels* (see Appendix 1) will be replaced by more meaningful and hopefully engaging titles and descriptions about how the areas look the flora and fauna they support and the way people choose to use them. Knowing about that flora and fauna may not interest everyone but a body of interested individuals (and organisations) can enhance the value of the site. That value will be a mix of aesthetic, intellectual and recreational – being mercenary for a moment, an interesting and well cared for site potentially enhances the desirability and value of the properties on the site too. This latter point is intimately bound up in how the site will evolve as it is the property owners at Duchess Park who are destined to pay for the site management and maintenance.

Importantly the role and attitudes of property owners will also be influential for quite another reason. That reason may be easily overlooked. More than half the original area of the development land is now private gardens. Private gardens reflect personal style and passions and as a consequence they provide a diverse landscape for wildlife. For example the open spaces on the site offer no pools or wet areas. Gardens can and do, in the form of a garden pond or a bird bath. So with this in mind private gardens will collectively be included as one of the descriptive pieces that follow.

At the time of writing this material I will shortly be entering my eighth year as an owner and resident at Duchess Park and have been a keen observer of the whole site, its flora and fauna over a number of years, over a range of seasonal weather and periods of good and bad site maintenance. In addition to my own observations, some of the available flora records and photographs of the site go back over a decade.

Crescent Boundary (area A1)



This area forms the northern boundary between Duchess Park and adjoining private gardens. It is typically about five metres deep. During construction, the developers decided to use the area to deposit the material from clearing scrub and trees. It was pushed up in to a continuous rough heap. The notion was that it would provide a haven for invertebrates and small mammals. Good ecological practice – but badly executed. Unwanted metal, wire, rubble, plastic, glass and other sundry waste was *conveniently* included in the ‘wildlife-heap’. The wildlife friendly dead wood unfortunately has become an eyesore. This was unfortunately compounded by the fact that insufficient space was available between the woody heap and boundary fences of adjacent properties to allow for proper access for management of encroaching thistles, nettles and brambles. A wildlife asset became a maintenance liability. Work has been undertaken to improve access for maintenance.

Surveying the area to assess its true wildlife value is unpleasant, even dangerous. It is probable that small mammals do use the area. The nettles and thistles doubtless attract some butterflies – but human enjoyment is limited by the poor access. As it stands, this area is likely to become less accessible and a nuisance to adjoining property owners.

On the positive side Crescent Boundary provides continuity for wildlife moving between Duchess Park and the established private gardens to the north. Urban foxes have been seen.

Courtside (area A2)



This rather neglected and underused area of rough grassland has valuable wildlife potential. South/southwest facing (warm) and with hedge and bramble on three sides it is very sheltered, a wildlife island amidst the surrounding development. With the right management of vegetation and human access it could be turned into a haven for butterflies to feed and breed. In the process it would become a pleasant additional source of enjoyment.

The clearly delineated boundaries and modest area mean that this could be very feasible habitat improvement project with little cost involved. A further motivation for some beneficial action here is that if neglected it may well become a subject of complaint from neighbours who adjoin and overlook the area.

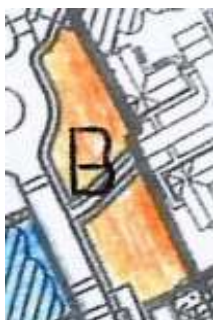
Foragers' Gap (area A3)



Forming the access route to Crescent Boundary and Courtside, it contains scrub and the southern end of the woody pile described in the Crescent Boundary section. The woody pile, together with some rough hedge forms the boundary and screen for the tennis club. It also offers a measure of privacy and security for adjoining properties while at the same time being the only access to Courtside. There is a group fine expanse of bramble and greengage trees, with a few elder.

If Courtside were to be managed sensitively for butterflies then Foragers' Gap would benefit from a suitable information/interpretation board describing the butterflies to be seen and at the same time seeking care and sensitivity from those visiting this part of the site.

The Lawns (area B)



This grass area has been kept as lawn. It came about as a late addition to the site. The developers acquired and built four extra houses and this piece of land resulted. Consequently little thought seems to have been given to planting and wildlife value to fit in with the general style and feel of Duchess Park.

The Lawns is an anomaly. Specimen Acer trees have been planted. The area could accommodate more trees, perhaps fruit trees to reflect the historic orchards of Duchess Park and its surroundings. Heritage varieties would seem appropriate. Hedge planting would add further wildlife value and fit well with the rest of Duchess Park.

Warren Hill View (area C1)



Without doubt the best views on the site. Take a seat and look eastward. It is Warren Hill, the subject of a painting by Munnings, maintained as one of the famous Newmarket gallops.

Having taken in the view of Warren Hill, the surrounding summer vegetation is meadow like with a mix of swaying grasses punctuated by clusters of wild flowers including St John's Wort, Oxeye Daisies, Common Toadflax, Common Vetch, Red Clover and Yarrow. Broomrape, a parasitic plant without chlorophyll, was a special find and Meadow Brown and Ringlet butterflies add interest.

The northwest corner is well planted with young trees (unfortunately the ash saplings are showing signs of ash dieback), the corner also has some more established trees which add height and create shelter. This corner promises to be a great feature in years to come.

A number of individual trees (3-4 years old) were also planted in 2010 by the developers and include birch and field maple

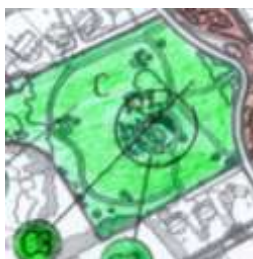
Kid's Space (area C2)



This area is primarily occupied by play equipment enjoyed by young children and their parents and grandparents. It is used by families living on the site as well as visitors from nearby streets. I confess that I have used swings and the see-saw with my own grandchildren (Tut tut!).

It is noticeable that the adjoining small copse attracts the kids too. They like to engage in imaginative play. Building little dens and shelters from wood and sticks found among the trees.

Broad Sweep (area C3)



This roadside strip has been treated, by frequency of mowing, to provide an aesthetically acceptable transition between the road, used by residents driving to and from their homes at the northern end of the site and the 'meadow' habitat of Warren Hill View.

It has islands of mixed whip planting, now becoming established and growing into low scrub. The planting includes hawthorn, hazel, hornbeam and field maple. It promises to add visual interest and habitat value – in due course. Larger trees planted as standards include hawthorn and crab apple. Pathways have been constructed to provide access to the play equipment on Kid's Space.

Long Sweep (area D1)



Like Broad Sweep, this longer stretch on the eastern side of the road is mown short to provide a transition. The mowing enhances the visual value of the island beds planted with a variety of whips similar to Broad Sweep. However there is substantially more planting and in addition a significant number of trees (3-4 year old, when planted in 2010). The majority of these individual trees are ash. They are being monitored for ash die back and at the time of writing there appears some reason for concern although many trees seem to be *almost* free of the disease. There are also field maples.

Narrow Stroll (area D2)



Once again, this area, like Warren Hill View, mixes meadow grasses, tree planting and mown paths. It provides a quiet area to walk. Twice yearly mowing of the meadow portion is gradually allowing patches of wild flowers to become established.

At its eastern end, Narrow Stroll takes a right-hand turn and is well planted with trees. It is destined to become a substantial screen between Duchess Park properties and pre-existing neighbours. It is relatively wild, but mowing the more open parts twice a year should encourage flowering plants.

Hedgerow (area D3)



This established hedgerow is the remains of an old field/track boundary, probably some decades old. It consists largely of hawthorn. It has grass behind and in front and produces a range of wild flowers. Its main value is aesthetic, acting as a screen. It doubtless is of benefit to birds, if only because of the hawthorn berries in winter. It is (unfortunately) heavily infested with ivy although this may increase its nesting potential. The base of the hedgerow may support small mammals and bumblebee nests – yet to be confirmed.

The Meadow (area E1)



This is the one part of the site where there seems to be the greatest agreement and contentment about the way in which it has been maintained. It is treated as a meadow, cut and cleared spring and autumn.

It is quite rich in wild flowers – available records include data pre-dating the main development of Duchess Park. Surrounded on three sides by roadway and passed routinely by 80% of residents of Duchess Park and their visitors.

Although not very conspicuous, concealed among the grasses in summer there are ant hills, which occasionally attract Green Woodpeckers.

The area is bounded on two sides by hedging planted in 2010. On a third side there is an established, mainly old, hawthorn hedge with clumps of privet. A small experimental area (about 20 square meters) along the base of this old hedge, on its east side, was planted with a wild flower seed mix in 2012. On its south side The Meadow adjoins The Copse.

The Copse (area E2)



In spring common dog violets appear before the hawthorn and sycamores are in leaf. Brambles grow widely in The Copse and provide food for a variety of bees and butterflies throughout the summer. After the bees and butterflies have helped with pollination, blackberries are there for the taking in late summer and early autumn. A careful search may reveal a few sloes.

Quiet Corner (area E3)



This is an important area providing continuity between the more visible Duchess Park open spaces and the adjoining 17 acre plantation on the south side and the remnants of an old orchard on the east side. It has acquired a reputation as a wildlife corridor. This greatly overstates its scale and role. Nevertheless it is a valuable link and consists of rough grass, cut twice yearly. There is significant whip planting in addition to existing fragments of hedgerow. It is dominated on the east side by mature sycamores.

The Old Orchard (area F)



Although rather dominated by large sycamores, the roadside part of The Old Orchard contains seven rather poorly old specimens of apple trees, still producing fruit but it is sparse and small. The trees have been identified by experts¹ as the varieties Lord Lambourne and Laxton's Superb. There was a nice strip of brambles provide the balance to the apple (removed by an overzealous contractor). There is also a walnut tree. Unfortunately another source of food, the elder bushes are very poor specimens. With time and management this little patch has the makings of a nice compact community orchard – Duchess Park Community Orchard. The photographs show the 'small forest' of lichen and moss growing on the bow of one of the elderly apple trees. As part of the community Jubilee Planting project, daffodils were randomly planted on this area. Varieties planted were traditional open trumpet suited to naturalising, *King Alfred* and *Hollywood*.

In April 2014 two heritage apple trees were added to the Old Orchard. The varieties are Maxton and Clopton Red. Both varieties are associated with this part of the country.

Just down the road from my house there is an old orchard. With others we hope to restore it in coming years using heritage varieties of apple tree. Currently the existing trees are very elderly and rather sickly, but produce copious fruits, albeit small. I looked closely at one of the trees and noted that it has a lacework of old ivy stems that once used the tree as a support (the ivy is dead as it has been cut at ground level). In the crook of the branches there is a beautiful colony of lichen, moss and algae. Just like a little forest on the apple tree. The dead wood is absolutely peppered with small holes made by some wood borer and tucked inside the end of a dead bow a small fungus (like a very small bracket fungus) is growing and some slug or insect has nibbled the fungus. The tree is a micro habitat going quietly about its business while the apples rot on the ground bothered only by an occasional blackbird and a passing squirrel. (December 2013)

Gated Patch (area G)



This area is a bit of an oddity. It is not connected with the other open spaces. It sits adjacent to our neighbouring social housing. It is fenced and planted with a range of saplings with the intention of creating a screen between the newer developments and pre-existing properties to the east. There are grasses and wild flowers.

Private Gardens

¹ East of England Apples & Orchards Project
June 2017

The gardens, clustered in groups around the site, may not yet have fulfilled their wildlife potential. There were efforts made to preserve some existing apple trees. To their credit planners and developers ensured that almost every property has a mixed hedge. An estimated 1000 metres of hedge was planted. The species planted include hawthorn, holly, spindle, field maple and blackthorn. Hopefully as residents stamp their eclectic likes on their plots, and planting matures, variety for wildlife will increase. Bird feeders, nest boxes and bird baths furnish some gardens. Those owned by the bird lovers. Asking residents what they grow in their gardens might be seen as intrusive but knowing more about their attractiveness to bees, butterflies, birds, and small mammals would be interesting. Perhaps this is the subject of some future survey?

Interactions with the surrounding areas

Fortunately the old and wild boundaries between Duchess Park and all surrounding areas are not clinically sealed. Mammals that seek to move onto, across and off the site have many options to choose from. Currently this benefits deer (mainly Muntjac), foxes, rabbits, squirrels and very occasionally, hedgehogs.

The land around Duchess Park is varied - thinking for a moment of our flying visitors, the birds, bats and insects. Within less than 100 metres of the previous site boundary one can find dense woodland, scrub and hedges, closely cut and grazed paddocks of the nearby studs, large and small new and established domestic gardens, avenues of broad leaved trees, remnants of old orchards. The wooded areas and avenues contain hawthorn, beech, oak, larch, pine, sycamore, lime, elm and those remains of old orchards. There are dead and decaying trees which benefit invertebrates and woodpeckers, green and great spotted. The woodpeckers calling or hammering add interest to the soundscape. Duchess Park is a delightfully quiet place, particularly at night, but the owls, especially the Tawny calling in the night is very evocative.

The habitat for birds is varied and as they pop over the fences to feeders or explore gardens for some portion of nature's bounty; they bring pleasure to those with a few moments to watch them. You may be fortunate to look up and see migrating buzzards silently circling on thermals drifting southward in the autumn and returning in the summer. Noisier but equally fascinating are the passing migratory geese flying, less quietly and more directly, to their destinations.

Human interventions - 'Guerrilla Gardening'

There is already some evidence of previous and current occupants of the area known as Duchess Park, perhaps surreptitiously, planting non-native species. For example there are privet, cotoneaster, golden rod and bluebells. Were these deliberately planted, just garden escapees seeded by wind or birds? The writer has been instrumental in trying to introduce wild flowers through seeding and the planting of daffodil bulbs.

Is this human intervention desirable, inevitable, of any great consequence?

The 'night time economy'

We are probably most familiar with and most likely to notice what walks, crawls and flies around during the daytime. In particular we will be aware of birds and butterflies and their caterpillars, and if we look more carefully we will see a wide array of other insect life including bees and ladybirds, day flying moths, dragonflies, damselflies and beetles.

What is perhaps a little less obvious is the diversity of wildlife that explores and exploits Duchess Park at night - the night shift. This diversity is itself dependent upon the season but thinking for a moment about the spring and summer the richness is surprising.

We have night flying moths which appeal to bats. Indications are that at least four species of bat can be found flying around our trees and hedges including our gardens. These are Pipistrelle, Soprano Pipistrelle, Noctule and Barbastelle.

I suspect that we have all heard the Muntjac deer at certain times of the year announcing their presence through the night. They are also seen from time to time wandering around and visiting gardens.

Owls too are often heard, mostly Tawny owls.

We have rabbits and foxes grazing and patrolling, making their way between Duchess Park and surrounding gardens and wooded areas.

Ecotones

An **ecotone** is a transition area between two biomes. It is where two communities meet and integrate. It may be narrow or wide, and it may be local (the zone between a field and forest) or regional (the transition between forest and grassland ecosystems). An ecotone may appear on the ground as a gradual blending of the two communities across a broad area, or it may manifest itself as a sharp boundary line.

The word ecotone was coined from a combination of *eco*(logy) plus *-tone*, from the Greek *tonos* or tension – in other words, a place where ecologies are in tension.

On Duchess Park, there are transitions between areas of short grass and long grass, grass and scrub, grass and hedge, gardens and woodland etc. These ecotones are where biodiversity is greatest. More ecotones creates more biodiversity, more biodiversity means more interest and sustainability of biological communities.

Pollinators

UK Government Pollinator Plans² refer to Five Core Actions to help bees and other pollinators in our UK Environment.

These are:

1. Grow more nectar and pollen rich flowers, shrubs and trees

Grow more flowers, shrubs and trees that provide nectar and pollen as food for bees and other pollinators throughout the year. For example, pussy willow, primroses and crocuses in spring, lavenders, meadow cranesbill and ox-eye daisies in summer, ivy and hebes in autumn, and mahonia shrubs and cyclamen in winter.

2. Leave patches of land to grow wild

Leave patches of land to grow wild with plants like stinging nettles and dandelions to provide other food sources (such as leaves for caterpillars) and breeding places for butterflies and moths.

3. Cut grass less often

Cut grass less often and ideally remove the cuttings to allow plants to flower.

4. Avoid disturbing or destroying nesting or hibernating insects

Avoid disturbing or destroying nesting or hibernating insects, in places like grass margins, bare soil, hedgerows, trees, dead wood or walls.

5. Think carefully about whether to use pesticides

Think carefully about whether to use pesticides especially where pollinators are active or nesting or where plants are in flower. Consider control methods appropriate to your situation and only use pesticides if absolutely necessary. Many people choose to avoid chemicals and adopt methods like physically removing pests or using barriers to deter them. If you choose to use a pesticide, always follow the label instructions.

Biodiversity

Within the wider context of, for example, Cheveley Parish, the Duchess Park site contributes something to the biodiversity of the area. It is one of the few areas that are not managed commercially. Therefore it presents opportunities for imaginative use and future management that could enhance its unique character. Duchess Park sits within the wider surroundings, which are mostly paddocks. This leaves open the opportunity for greater encouragement of a very wide range of flora and associated fauna.

Interpretation Boards

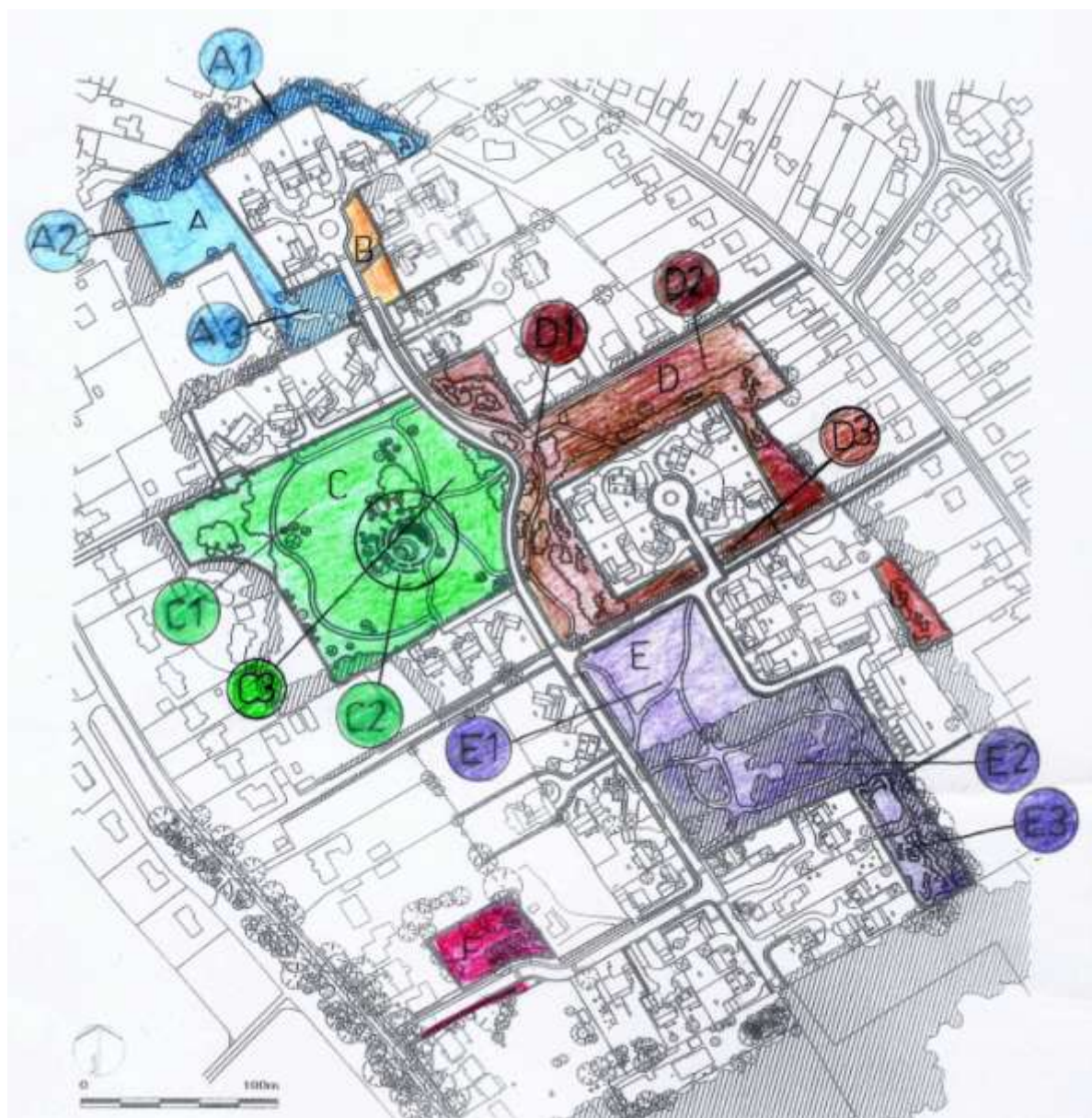
The fact that Duchess Park has been designated Public Open Space raises the opportunity for education concerning the history and wildlife represented by the site. A common way of achieving this is through the use of Interpretation Boards. The following examples illustrate some possibilities.



² National pollinator strategy: for bees and other pollinators in England November 2014
June 2017

Appendix 1

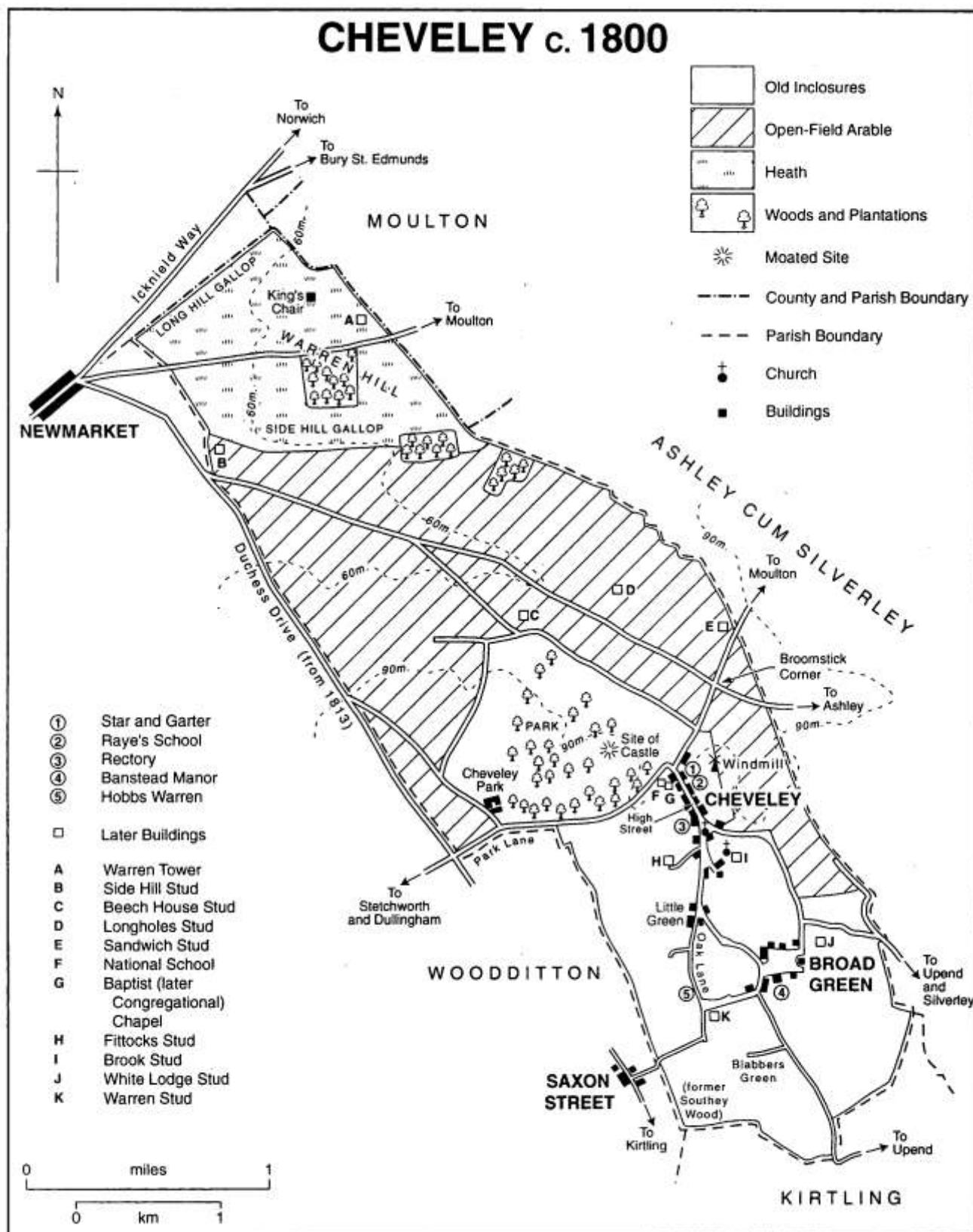
Annotated plan of the site (schematic, pathways only indicative)



Generic map references for use with early records:		
A1	565879, 262629	Crescent Boundary
A2	565849, 262630	Courtside
A3	565850, 262567	Foragers' Gap
B	565904, 262578	The Lawns
C1	565834, 262437	Warren Hill View
C2	565876, 262429	Kid's Space
C3	565936, 262457	Broad Sweep
D1	565976, 262418	Long Sweep
D2	566054, 262508	Narrow Stroll
D3	566077, 262417	Hedgerow
E1	566029, 262349	The Meadow
E2	566077, 262303	The Copse
E3	566148, 262269	Quiet Corner
F	565937, 262205	The Old Orchard
G	566151, 262387	Gated Patch

Appendix 2

Cheveley Parish map circa 1800



<http://www.british-history.ac.uk/report.aspx?compid=18780#n62>

Appendix 3

Duchess Park Site Maintenance Approach

The plan below shows the proposed cutting frequencies.



In addition to the cutting schedule above, the maintenance contractor is expected to maintain hedges, planted areas and trees in the public open spaces. It is hoped that this maintenance regime will provide a good balance between aesthetic and wildlife considerations as well as being affordable for the property owners upon whom the costs will eventually fall.

The proposed maintenance will give a mixture of habitats to encourage a diversity of flora and fauna:

- short grass (access paths and visual transition areas)
- longer grass (meadow grass)
- existing scrub and newly planted shrubby areas
- existing trees and new tree planting
- play area

Some limited experimental native wildflower seeding has been carried out on areas E1 and E3.