

**A Natural History
of
Sutton Park**

**Part 1:
The Vascular Plants**

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and
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General Introduction (by Peter Coxhead)

Towards the end of the 1980s, the late Harold Fowkes first conceived the idea of producing a work on the natural history of Sutton Park. The prime intention was to make the available information more widely accessible, and so support the management of the wildlife of the park. With the assistance of Peter Coxhead, the first part of the work, on the vascular plants, was published in 1991, funded by the Sutton Coldfield Natural History Society. The original intention was to proceed in stages by producing booklets on separate aspects of the park's natural history, and then, after appropriate revisions, to combine these into one volume. The booklets were to consist of general introductions to the included taxonomic groups, followed by checklists of species considered to be present or to have been present in the park. In listing species of plants and animals, existing records and information would be used, particularly from the Biological Records Centre at the Warwickshire Museum, rather than new fieldwork.

Three booklets were produced between 1991 and 1997:

- Part 1, *Vascular Plants*, 1st edition 1991, 2nd edition 1997
- Part 2, *Fungi, Lichens and Bryophytes*, 1993
- Part 3, *Birds*, 1995

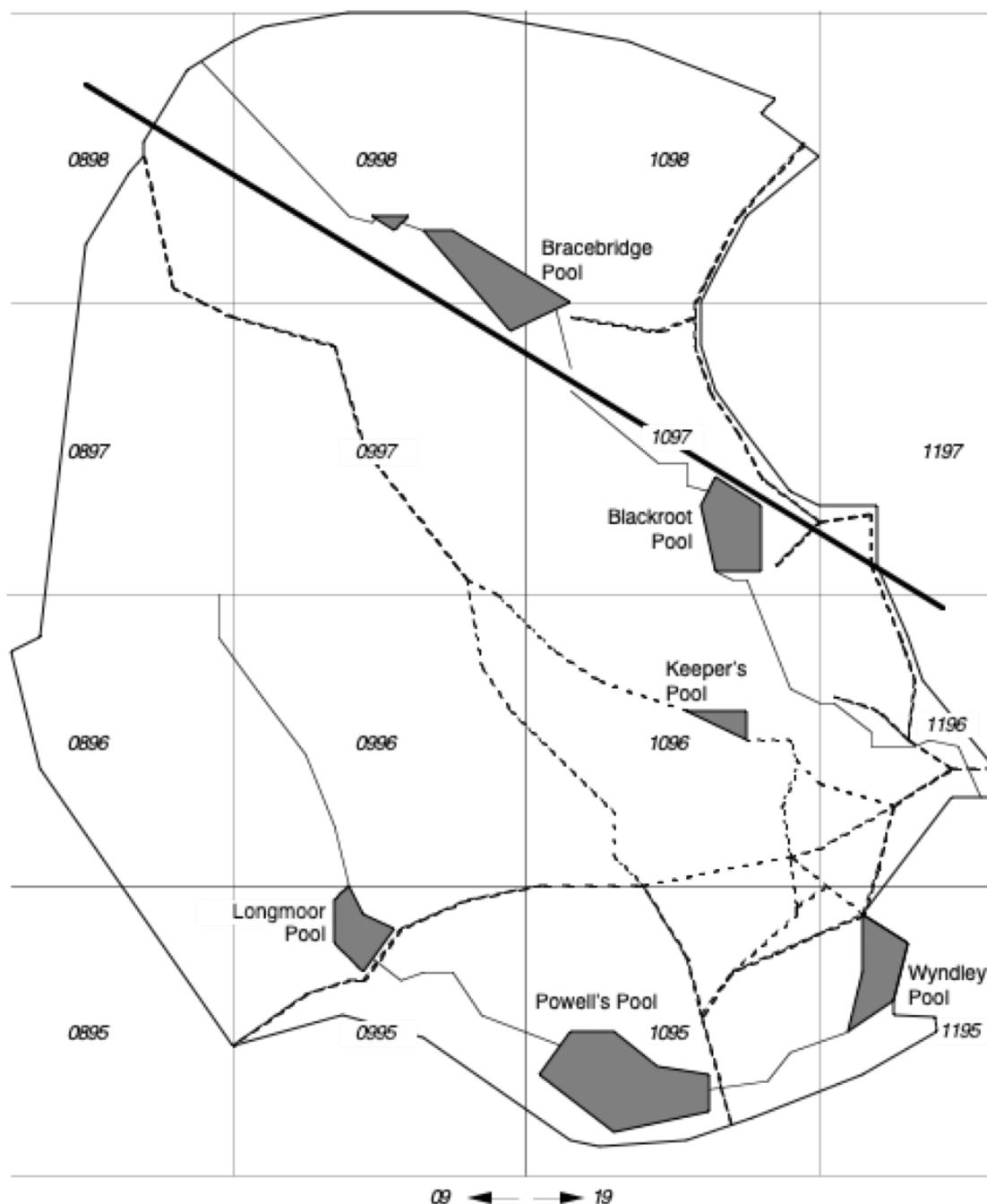
Work was underway to produce the fourth part, on the animals of the park, but was hindered by Harold Fowkes' ill health and subsequent death in 2005, and also by the realization that the sheer volume of the invertebrate records, particularly following a major survey in 1996–1998, meant that a printed work containing animal checklists would be impractical.

I decided to put all the checklists on the web (later followed by the individual records). They can be found starting at <http://www.spnh.scnhs.org.uk>

However, this meant that the text of the three published booklets and of the unpublished animals booklet was not easily available, so it is being put online, although some material may now only be of historical interest.

Where not explicitly attributed to another author, the original text was by Harold Fowkes and Peter Coxhead. Revisions are by Peter Coxhead.

Sketch Map of Sutton Park



The boundary shown is the 'Park Pale.'

Grid Squares The sketch map shows the Ordnance Survey 1 km squares. These are assigned four-figure codes based on the grid references of their south west corners. County-wide Floras frequently use 10 km squares, which are assigned two-figure codes in a similar manner. For example the location indicated by the full six-figure grid reference SP098962 falls in the 1 km square 0996 (dropping the original third and sixth figures), and in the 10 km square 09 (further dropping the original second and fifth figures). Sutton Park is split between the two 10 km squares 09 and 19. Appropriately, it lies entirely in the 100 km square assigned the two-letter code SP.

The Plant Life of Sutton Park

Introduction

As well as being the arena for the leisure activities of a large surrounding urban population, with all the tremendous pressures on its eight square kilometres, Sutton Park is also remarkable in that its natural features have survived largely unspoiled down the centuries. It is, as such, of unique importance and interest, especially to the naturalist. The careful management which the park deserves should ensure that both these functions will continue indefinitely.

The diversity of habitats is astonishing within so comparatively small an area. Woodland, heathland, pools and streams, marshland and boggy areas are all well represented, each with its own natural features and species, some of which are of particular interest. Twenty or so plant species are to be found nowhere else in the botanical county of Warwickshire. The park has the capacity to surprise even regular naturalist visitors by producing new records from time to time, and the task of making records and keeping them up-to-date will undoubtedly prove to be an absorbing and rewarding one.

Flowering plants and trees

At first sight, the average visitor to the park might be expected to conclude that it is not rich in wild flowers, notwithstanding the brave show made by the abundant gorse and heather. Nevertheless, the flowers are there in many species and in greater or lesser abundance if one knows where to look. A closer acquaintance with their habitats is required. For this, many visits would be necessary if an individual had to depend on personal resources to build up a good knowledge, but fortunately there are excellent ways of developing an acquaintance with the plant life of the park.

Time spent in the Visitors' Centre is an almost indispensable preliminary. There the illustrative material makes it possible to preview what there is to be found, and where. Beginners could with advantage follow one of the nature trails or participate in a guided walk. As interest grows, they would benefit by joining a natural history society.

First, we will look at the woodlands, now covering about a quarter of the area of the park. These could be described as semi-natural. One can only speculate as to their original extent and where the greatest density occurred. Certainly the heathland was, centuries ago, colonized by Silver Birch, Holly, Rowan and Oak. This colonization continues today, in the case of birch so vigorously as to constitute a major problem. An outstanding example of this is the vigorous growth of scrub birch in some heathlands since 1976 (a drought year), which threatened to permanently change parts of the park for the worse. A recent programme of eradication in some areas is proving successful, with good re-generation of the heather and a clear restoration of the scenery to its traditional pattern. This is not to decry the birch as a tree; indeed, mature birches are among the chief beauties of

the park. The Alder, also an ancient constituent along stream-sides and in water-logged places, does not exhibit this invasive tendency.

The present woodlands include many introductions in more recent times. They include Corsican and Scots Pine, Larch, Spruce, Western Hemlock, Red Oak, Sweet Chestnut, Beech and Sycamore; all presenting a more or less 'natural' appearance. Early this century, the rhododendron *R. ponticum*¹ was introduced. The undoubted attraction of its pinkish purple flowers as summer approaches is offset by its tendency to spread and swamp the native vegetation. This has already happened in much of the country, although in the park the effect is mitigated by human pressures – with the notable exception of Park House grounds, where colonization by rhododendron is now very much in evidence. The Rowan in fruit and the Crab Apple in blossom are delightful small trees, but it is likely that many of the latter are descended from the domestic apple. A favourite, even smaller, tree of wettish places is the Alder Buckthorn, the berries of which turn black in the autumn.

The park's woodlands are not noteworthy for their wild flowers. Bluebells, a prominent feature of local woods, are here scanty and isolated. Neither is that other spring carpeter, the Wood Anemone, anywhere abundant, although a fine display is provided by occasional dense patches, notably near the margins of wet woodlands in the Little Bracebridge area. The Cranberry forms brilliant pink mats of tiny parachute-like flowers on damp, open ground among the pines bordering the railway embankment on the far side from Bracebridge car park. Other species favouring a woodland setting can be searched for in season, e.g. Wood-sorrel, Wood Sanicle and Yellow Pimpernel. Common Cow-wheat, which also favours in this habitat, has not been seen since 1996. Attractive as they are in all seasons, the woodlands are especially so in autumn, not only because of the glowing colour, but also on account of the abundance and variety of the fungi for which the park is justly noted.

Heathland and grassland make up about half the area of the park. The brilliant yellow of the gorse features prominently for much of the year, and it is important to distinguish two species. The earlier months see the Common Gorse (*Ulex europaeus*) at its showiest, but later on it is the rather lower-growing Western Gorse (*Ulex gallii*) which contrasts so well with the purple of the heather. Close relatives of the heather are Bilberry, Cowberry, Cross-leaved Heath, Bell Heather and Cranberry. The Bilberry is familiar enough, but the smaller Cowberry is distinguished by its somewhat leathery, evergreen leaves and its bright red, shiny berries. Bell Heather is decidedly less common here than Ling or common Heather, and may now be absent, not having been recorded since 2002. Its flowers are larger and more deeply coloured. The terminal clusters of the pink, Japanese lantern-shaped flowers of Cross-leaved Heath are quite distinctive, as is its preference for damper sites. The Cowberry, with black berries, can be met with on both boggy and drier ground. Neither the

¹ Naturalized plants in the British Isles may also be the hybrid *R. × superponticum*.

Crowberry nor the Cranberry has been recorded elsewhere in the botanical county of Warwickshire.

The extensive central grassland (the Jamboree site), where heather and gorse are mainly absent, demonstrate what happens where cultivation has been carried out and artificial fertilizers used. In such places, many years will pass before they revert to heathland with its associated species. Nevertheless, there are changes, for nature is anything but static. The increase in the amount of bracken is but one example, and the aggressive colonization by scrub birch of some heathland – particularly where there have been fires – has already been mentioned.

Sutton Park's streams and pools are without doubt a main attraction, and certainly to the botanist. Many fine plants grow in the water itself, spreading into the muddy margins in places. These include the Greater Spearwort, a stately member of the buttercup family, seen to great advantage with its large yellow flowers in such places as Little Bracebridge Pool. Lesser Spearwort is very much smaller in all its parts, favouring ditches and wettish hollows rather than the water itself. Other eye-catching water-loving plants are the Yellow Flag iris, the bur-reeds and reed-maces, the superb Bogbean and its relative the recently introduced Yellow Fringed-waterlily, and the unrelated White and Yellow Water-lilies. Three water-crowfoots – the white-flowered cousins of the buttercups – are to be found. They are the Ivy-leaved Water-crowfoot, *Ranunculus hederaceus*; the Round-leaved Water-crowfoot, *R. omiophyllus*; and the Pond Water-crowfoot, *R. peltatus*.

It is when we visit the marshlands and boggy areas of the park that we realize just how rich their flora is. There are very few comparable areas in central England. Many of the interesting species are peculiar to Sutton Park. In the marshy places, as distinct from boggy habitats, can be seen the familiar Marsh-marigold and Lady's-smock, Devil's-bit Scabious and Water Mint, Marsh and Meadow Thistles, and also, if one is prepared to search, Knotted Pearlwort and Marsh Arrow-grass, Marsh Violet and Bog Pimpernel.

In a marsh, the soil remains more or less water-logged. A bog is just as wet, but here it is peat which is much in evidence, often covered by a layer of sphagnum moss. In places marsh and bog tend to merge into one another, and here we may find the Lousewort, with bright pink flowers, and the taller Marsh Lousewort, which prefers wetter places. Also, as the longest summer days approach, a magnificent display of Southern Marsh-orchids (*Dactylorhiza praetermissa*) can be seen in several areas of the park. When looking at the orchids, it is necessary to distinguish the Southern Marsh-orchids from the Common Spotted Orchids (*Dactylorhiza fuchsii*) which also make a fine show, sometimes in separate colonies, but equally commonly alongside their cousins. Where this happens, the pure species are often out-numbered by hybrid plants, exhibiting every possible variation between the two. These hybrid plants are often tall and vigorous and their leaves are marked with dark rings, not solid spots which are a feature of the Common Spotted Orchid. In early autumn – much later in the park than in other parts of the country – a colony of the delicate-

flowered Grass-of-Parnassus, its white blooms lasting into October, is one of the special treasures.

The Marsh-orchids of Sutton Park



1 Southern Marsh-orchid (*Dactylorhiza praetermissa*)

Common Spotted Orchid (*Dactylorhiza fuchsii*)



2



Hybrid (*Dactylorhiza* × *grandis*)

Often taller than **1** or **2**; lip with smaller central lobe than **2**, markings very variable, approaching either parent.

Sutton Park is now unique in the botanical county of Warwickshire in possessing small colonies of two species of carnivorous plants in bogs and wet heathland. They are the Round-leaved Sundew (*Drosera rotundifolia*) and the Butterwort (*Pinguicula vulgaris*), both small, attractive plants. The former is distinguished by its flat rosettes of pale green leaves bristling with sticky, crimson hairs which can curve inwards to trap and digest small insects. The small white flowers are borne at the top of short, leafless stems. Sundews are most likely to be found on sphagnum and less commonly on wet heaths, whereas butterworts favour the latter habitat. Their yellowish-green rosettes of oblong leaves have margins that curl inwards to trap insects, which are then digested on the sticky leaf-surface. The small, violet-like flowers are carried singly on leafless stems.

The student of sedges will find much of interest in these marshy or boggy areas. There are twenty-five or so species and although they may lack the immediate appeal of their more showy companions, the search for them can be just as absorbing. This applies equally to the grasses.

This general introduction to the flora of Sutton Park is intended only as a curtain raiser to continuous activity on a stage occupied by all, beginners as well as experts, who wish to be engaged in monitoring – even adding to – the lists of species, or involved in research into the best means of protecting habitats. This is the best guarantee of ensuring the healthy survival of a unique area. These remarks apply not merely to the flora, but to all aspects of the natural history of the park.

Insectivorous Plants of Sutton Park
found in marshy places and bogs



Common Butterwort

Greenish-yellow, sticky leaves which roll inwards to trap and digest insects. Violet flowers with a white throat patch.



Round-leaved Sundew

Long-stalked red leaves in a neat rosette, with long, sticky hairs which curl inwards. Small, white flowers.

The Vascular Plants of Sutton Park

Preparation of the database

The task of preparing a Flora of the vascular plants of Sutton Park was one to be approached with some trepidation. As a first step it was decided to construct a computer database which could subsequently be maintained and updated and from which the Flora itself could be produced. Since the way in which the database was set up has a considerable bearing on its probable accuracy, this process will be briefly described.

The initial task was greatly aided by finding that there was already a computer database at the Warwickshire Museum, which had been prepared by Mrs Pam Copson, the county recorder, drawing on the *Computer-Mapped Flora*.² This database attempted to list all the species of vascular plants found in the Warwickshire botanical county, and amongst other information noted in which 10 kilometre square each species³ occurred. As a first step a 'Sutton Park database' was prepared by extracting from the full database all the records which related to the two 10 kilometre squares in which the park is located. In theory this should have included all the plants growing in Sutton Park, as well as those found in its vicinity but not in the park itself. This database was then checked against the most recent Flora of Sutton Park, namely Readett's 1971 Flora,⁴ which was published at more or less the same time as the larger *Computer-Mapped Flora* covering the whole of the botanical county of Warwickshire. Extra fields were added to the database to indicate whether a species had been recorded prior to Readett and whether it had been found in Readett's survey. Any species recorded by Readett, whether found in his survey or earlier, which were not in the initial Sutton Park database, were added to it. Any species that had never been recorded as growing in the park were discarded. The final step at this stage was to add any species which we knew to be present, but which for some reason did not seem to have been recorded previously.

Having built up the Sutton Park database, the species were then classified into three categories: those believed 'present', those believed 'probably present' and those believed 'lost'. We began with the general principle that, unless evidence existed to the contrary, all of the species recorded as present by Readett were still present, and all of the species recorded prior to Readett, but not found in his survey, had been lost. The database and our classification were then checked in a number of ways.

² Cadbury, D.A., Hawkes, J.G., and Readett, R.C., *A Computer-Mapped Flora: A Study of the County of Warwickshire*, published for the Birmingham Natural History Society by Academic Press, London etc., 1971. The title has been abbreviated to *Computer-Mapped Flora* throughout.

³ Strictly the records are of 'taxonomic units' or 'taxa'; the great majority are of species, but some are of subspecies, etc.

⁴ Readett, R.C., "A Flora of Sutton Park", *Proceedings of the Birmingham Natural History Society* **22**, pp. 1-88, 1971; also published as a separate reprint.

The database was compared with Bagnall's 1876 Flora⁵ (although this was not expected to show up any major omissions since Readett had extensively researched both Bagnall's records and herbaria). Draft checklists were circulated to local botanists⁶ asking for their comments. The original records at the Warwickshire Museum were also examined.

Between the publication of the first edition of the Vascular Plants booklet in 1991 and the second edition in 1997, 27 new species were found and 12 species thought to have been lost were re-discovered⁷ (changes in species definitions are responsible for any further differences). It should be noted that the additional records and re-discoveries which relate to the square 1095 may reflect transient species, as this area north of Powell's Pool was subject to considerable disturbance during 1991, which apparently included the import of soil from outside the area. Some species found there are distinctly lime-loving, a feature which is not characteristic of the park as a whole.

It must be stressed that, at this stage, the great bulk of the classification given above (and used in the online checklists) is based on existing records, particularly Readett's, and on the assumption that these still hold, at least where they are consistent with both the original Warwickshire database and the *Computer-Mapped Flora*. No attempt has yet been made to conduct a new systematic survey of the park, although the online checklists attempt to include records and observations made since the publication of the booklets. Thus some of those species regarded by us as 'present' may not have been recorded since the 1960s.

Future work on the Flora

This work represents only one stage in documenting the flora of Sutton Park. As has been stressed earlier, the checklists presented here are largely based on previous records, rather than on new fieldwork by the authors. We hope they will be of value to all interested parties, whether individuals or groups, but their primary purpose at this stage must be to invite further confirmations, up-dates, additions and deletions. This process will inevitably be continuous, since nature never stands still (and neither does nomenclature!); however, the all-important goal is to have as up-to-date and as complete a record of what is present in the park as is humanly possible.

The reasons why species may have disappeared are various. Some were only ever casuals in the park (e.g. Hemp, *Cannabis sativa*; Thorn-apple, *Datura stramonium*), often introduced as the result of human activity such as the building of the railway line (e.g. Common Flax, *Linum*

⁵ Bagnall, J.E., "Notes on Sutton Park: Its Flowering Plants, Ferns, and Mosses", read at a general meeting of the Birmingham Natural History and Microscopical Society, held December 6th, 1876.

⁶ Our grateful thanks to the following who contributed additional records and corrections: S. Bodnar, J. C. Bowra, A. R. Busby, J. H. Field, B. R. Fowler, Prof. J. H. Fremlin, Prof. J. G. Hawkes, J. W. Partridge.

⁷ Notable recorders included R. L. Woodward-Clarke, B. Rowe, R. C. Palmer, S. Bodnar.

usitatissimum; Spear-leaved Orache, *Atriplex prostrata*). Their current absence is not surprising, and neither would their future recurrence be. Other species probably disappeared in earlier times through over-collection. Bagnall notes in his 1876 Flora that he did not localize the rarer species because “it would only lead to extermination.” Ferns in particular seem to have been victims of Victorian collectors. Finally, some species have suffered through environmental changes, particularly changes in drainage and pollution (e.g. Stag’s-horn Club-moss, *Lycopodium clavatum*). However, it is likely that many ‘lost’ species have simply not been recorded recently. For example, Bagnall (1876) described Dog’s Mercury, *Mercurialis perennis*, as “frequent,” yet it was not recorded by Readett. In the first edition of the booklet, the authors commented that “surely such a colonizer cannot have wholly disappeared?” and indeed Barrie Rowe has since re-discovered a small patch.

Some 27 species were newly recorded in the 1997 edition. It is not surprising that many of these have originated in gardens, reflecting the greatly increased urbanization of the park’s perimeter since even Readett’s time. Seeds may have been brought into the park by various means, such as by birds or with soil from outside sources. Some of the newly found species are true aliens (e.g. Canadian Goldenrod), others are horticultural varieties of native species (e.g. Garden Solomon’s-seal) and others true natives (e.g. Wild Teasel, Dark Mullein). In contrast to these new records, some species have diminished appreciably (e.g. Crowberry, *Empetrum nigrum*), while others have eluded discovery, and it may be that there will have to be additions to the ‘lost’ list.

A few species have been the subject of reports but in the absence of voucher specimens and precise locations were not accepted for inclusion in the Flora of the Warwickshire botanical county and hence have also been excluded here. These include *Epilobium roseum* and *Mentha suaveolens* (= *M. rotundifolia*), both of which would be important finds if they could be confirmed. In the latter case, it is possible that the record refers to the recently discovered hybrid mint, *Mentha* × *villosanervata* (= *M. villosa*).

In future, systematic surveying of the park will be necessary to build up distribution information, but any observations made during infrequent or casual visits to the park, however limited, will be welcomed. Nothing is to be regarded as unimportant or insignificant, and it should be emphasized that confirmations are as important as possible new records. It is hoped that there will be a steady flow of information between all concerned and the authors.

Reports which help to build up distribution information on species already known to be present or newly discovered can be sent to records@scnhs.org.uk. All information will be shared with appropriate local recorders.

Reports should give:

- Species name: ideally including the Latin name used in the online checklist.
- Location: try to give at least the 1 km square number; preferably give a six figure grid reference and add a brief description of the locality.

- Habitat: woodland, grassland, heath, waterside, water, etc.
- Date of the record.
- Name and address of the recorder.

The online checklist is accessible from

<http://www.spnh.scnhs.org.uk/#chklis>