

THE FLORA OF HYDE PARK AND KENSINGTON GARDENS, 1958-1962

By D. E. ALLEN

Hyde Park and Kensington Gardens, which jointly form a giant oasis of 636 acres near the centre of London, miles from the open country, have perhaps been investigated by botanists more minutely and over a longer period of time than any comparable area in the British Isles. Quite apart from the intrinsic interest of the wild—and now very large adventive—flora of two parks that are so blatantly unrural and which have been used so intensively by the public for so many years, they are also of some importance in botanical history in having formed the subject of possibly the first detailed account of a weed flora published in this country—by J. B. Leicester Warren (later Lord de Tabley) in 1871.

HISTORICAL BACKGROUND

Hyde Park was formerly the southern end of a wedge of wooded pastureland which covered the area watered by the Westbourne and the Tyburn, two minor tributaries of the Thames, and which extended northwards by way of what is now Regent's Park to Highgate. Even to-day such fragments of the old turf that remain support a vegetation still faintly discernible as the one-time ground-flora of an oakwood. In 1536 this area was reserved as a royal hunting forest by Henry VIII, and the land has remained Crown property—except for a year or two during the Commonwealth—ever since. Queen Elizabeth I started the custom of holding military reviews in the park, but it was not until the reign of James I that the public were first freely admitted. In 1643, during the Civil War, it no doubt suffered heavily when Parliament ordered the felling of trees in the Royal Parks, to supply the fuel that London was denied by the Royalist blockade. Some fifty years later, twenty-six acres were wrenched from it by William III to form a setting for Kensington Palace, and these, enlarged tenfold and extensively replanned in the reigns of George I and George II, became in time the separate and self-contained western half of the once-single park under the name of Kensington Gardens.

The earliest records of the wild flora are three given by Christopher Merrett in his *Pinax* (1666): *Cerastium glomeratum*, *Montia fontana* (which he described as frequent) and *Luzula campestris*. Of these only the last can still be found. It was about this time, as we know from the diaries of Evelyn and Pepys, that the park began to become the parade-ground of fashionable society, a development which may well have touched off the

long, ruthless 'tidying-up' process that has continued, with steadily increasing efficiency, down to the present.

The Serpentine, the greatest fruit of this urge to improvement, was created in 1730 by damming the Westbourne. *Potamogeton pectinatus*, recorded by Hudson (1762), was the first of several aquatic species to appear here—and later also in the Round Pond, which is fed from the Serpentine. Though boating was permitted to the public from 1847, the Serpentine could still produce, over twenty years later (Warren, 1871) great quantities of *Potamogeton pusillus*, *Zannichellia palustris*, *Elodea canadensis*, *Myriophyllum spicatum* and *Polygonum amphibium*. To-day most of these still survive in the Round Pond, but the Serpentine is quite barren.

Warren's list of 1871—observing, it should be noted, more stringent criteria of wildness than would be customary to-day—comprised 153 species of flowering plants and ferns recently seen in the two parks by himself, together with a further 10 contributed by the Rev. W. W. Newbould. 25 species recorded in the earlier literature were not refound; most of them, presumably, had even by then become extinct. Four years later (Warren, 1875) another 18 species were added. Both the list and its supplement, very fortunately, include notes on frequency and, for the rarer species, precise localities, so that here there is an invaluable base-line against which all subsequent work can be measured.

Of the 181 species in all, found either by Warren or by Newbould, as many as 33 have not been reported since. Many of these are marsh or aquatic species, whose habitats have been either destroyed or irreparably altered. One or two others, most notably *Trifolium glomeratum*, were found in old turf that has long since been worn away by trampling and replaced by artificial mixtures—a process already under way by 1833 (Denison, 1835). Still others, like *Molinia caerulea* (brought in with peaty soil for rhododendrons) and *Puccinellia distans* (in new-laid turf), were obvious freak occurrences less likely to slip through in similar ways to-day. On the other hand, though the list includes *Agrostemma githago* and *Elodea canadensis*, both of which have ceased to be such prevalent plants as they were in the England of the 1870s, it contains no mention of such characteristic modern London weeds as *Coronopus didymus*, *Chenopodium ficifolium*, *Chamaenerion angustifolium*, *Senecio squaridus*, *S. viscosus*, *Lactuca serriola* and, inevitably, *Galinsoga parviflora*, *G. ciliata*, *Matricaria matricarioides* and *Epilobium adenocaulon*. *Conzya canadensis* was at best rare and *Mercurialis annua* only represented by a single plant. It would seem from this that, as the Metropolis has sprawled and the country become more and more distant, many of the 'old' weeds—*Ranunculus ficaria*, *Cerastium fontanum* subsp. *triviale*, *Vicia cracca*, *Myosotis arvensis*, *Euphorbia helioscopia*, *Arrhenatherum elatius*, all found fairly frequently by Warren—have tended to decrease and a 'new' weed flora, much more markedly alien in

character, has gradually spread and risen to dominance in their place.

During the Second World War the parks, in the words of Church (1956), broke into "a scurf of allotments, camps, anti-aircraft and radar emplacements, and other un-idyllic sores". Extensive areas of the remaining natural turf were dug up and the shortage of labour allowed weeds to flourish almost unchecked. Several unusual species, notably *Carum carvi*, *Gnaphalium sylvaticum* and *Poa palustris*, turned up on air-raid shelters in 1945. Shortly afterwards, in 1947-49, before the parks had been wholly restored to their normal peacetime condition, Kent (1950) carried out a second detailed survey, resulting in a list of 136 species, to which a further 4 were added later (Kent, 1960). This was based on only about a score of visits and was regarded as "by no means a complete account". 49 of the species found were not in Warren's list, but 3 of these were probably planted and a further 7 would doubtfully have been admitted by Warren.

It was under the stimulus of this list of Kent's that a third detailed survey, here reported upon, was undertaken in 1958-62. During these five summers I explored the parks on average at least once a week and combed every part accessible to the public—as well as several of the more promising of the railed-off enclosures, with the aid of a permit from the Ministry of Public Buildings and Works. Despite this I am aware of still having missed several species, which, too immature or too far-off for confident determination, have been lost prematurely through either the remorselessness of the gardeners or the pressures of dignity imposed on one by the special goldfish-bowl quality of park botanising.

In all, 309 species and hybrids have been noted this time, as against 181 found by Warren and Newbould and 140 by Kent. This higher total does not necessarily indicate a permanently richer flora (probably the reverse is true), but is explained partly by the greater length and intensity of this survey compared with its predecessors and partly by the accident that it chanced to coincide with the drastic roadwork alterations that affected the whole eastern edge of Hyde Park in 1960-62. While the latter has meant that the period covered by this survey is thus in some degree abnormal, it has nevertheless also been valuable for revealing the range and number of species that can be expected to come in when opportunities for introduction are at their greatest. The coincidence of the survey has also meant that a thorough record of new arrivals through this medium has been kept, so that should any become permanently established in the parks from now on, their origin has at least been usefully documented.

RECENT CHANGES

In the short space of the nine years since the end of Kent's survey, the flora has evidently altered very considerably. Apart from aquatics only six of the numerous less common species localised in his list are still to be found in what are recognisably

the same stations: *Silene vulgaris* (east bank of the Serpentine), *S. dioica*, *Chenopodium rubrum*, *Dipsacus fullonum* (now reduced to one plant), *Tragopogon pratensis* and *Carex ovalis*. Several other species, however, have been detected in what are evidently the same stations in which Warren found them in the 1870s, and unless these are re-arrivals (which seems unlikely) it seems probable that Kent overlooked them. These are *Ranunculus sceleratus*, *Polygonum amphibium*, *Lycopus europaeus* (all three in different places at the edge of the Serpentine), *Chamaemelum nobile* (Kensington Palace lawn), *Taraxacum laevigatum* and *Carex hirta* (both on the dry strip north of the Magazine).

The following seventeen species recorded by Kent have not been re-found:—

RANUNCULUS FICARIA	FOENICULUM VULGARE
BRASSICA JUNCEA	CALYSTEGIA SILVATICA
CARDAMINE FLEXUOSA	VERONICA CHAMAEDRYS
GERANIUM DISSECTUM	HIERACIUM EXOTERICUM
MELILOTUS ALBA	POTAMOGETON PECTINATUS
VICIA SEPIUM	BROMUS LEPIDUS
LATHYRUS PRATENSIS	BRACHYPODIUM SYLVATICUM
TORILIS JAPONICA	DESCHAMPSIA CESPITOSA
	AGROSTIS CANINA

A high proportion of these are perennial species, which were doubtless eradicated when the lax wartime state of the parks was eventually corrected. Furthermore, all but three have been recorded from at most only one other locality in Inner London in recent years (Kent, 1960, 1962). Even *Calystegia silvatica*, which one would expect to be widespread, is curiously absent to-day from the central parks, where its place is taken by *C. sepium*.

Several species, mostly grasses, have also become noticeably much scarcer since the time of Kent's survey. *Bromus mollis* and *Anisantha sterilis*, both recorded as common, are now, quite inexplicably, extremely rare; only two specimens have been found of *Lolium multiflorum*, which Kent was able to describe as frequent; and neither *Agropyron repens* nor *Hordeum murinum* could now be termed "abundant". Similarly, *Epilobium obscurum* and *Polygonum convolvulus* are now occasional instead of "common".

On the other hand, a considerably larger number of species which Kent recorded from two localities at most can now be regarded as frequent to locally abundant:—

RANUNCULUS REPENS	PLANTAGO LANCEOLATA
CORONOPUS DIDYMUS	GALIUM APARINE
SAGINA PROCUMBENS	HYPOCHOERIS RADICATA
ATRIPLEX HASTATA	SONCHUS ARVENSIS
EPILOBIUM ADENOCALON	POA PRATENSIS
AETHUSA CYNAPIUM	P. TRIVIALIS
URTICA URENS	CYNOSURUS CRISTATUS
U. DIOICA	PHLEUM BERTOLONII

The majority of these changes are surely more apparent than real, the result of more intensive field-work. There do genuinely, however, seem to have been big increases in *Coronopus didymus* and *Epilobium adenocaulon*—as also in the two *Galinsoga* species. And the same is presumably true of so conspicuous a species as *Epilobium hirsutum*, the former solitary record for which (as also for *Cerastium fontanum* subsp. *triviale*, *Medicago lupulina* and *Carex hirta*) can now be multiplied tenfold.

This pattern of abrupt and relatively dramatic increases and decreases in only a limited number of species, while the populations of most of the rest remain fairly constant, is perhaps the most striking finding to emerge from the new survey. It is not only deducible from these comparisons with Kent's data, but has also been observed in the field. Almost every year seems to be characterised by an "explosion" on the part of one species or another. Thus 1960 was the year of *Lamium purpureum*, 1961 of *Epilobium adenocaulon*, 1962 of *Arabidopsis thaliana* (which also fared noticeably well then in many other parts of the British Isles) and *Gnaphalium uliginosum*. This kind of phenomenon has often been noted in aquatics, but terrestrial floras, and particularly weed floras, tend to hide such things by their very diversity and are seldom sufficiently closely and continuously watched over for these sizeable year-to-year swings in numbers to be revealed. The causes of the swings are clearly various: some, as in the case of *Gnaphalium uliginosum*, seem to be simply the result of fresh soil from a newly-imported central dump being laid over many different areas of the park; but most are doubtless the result of minor fluctuations in weather conditions, in particular, favourable conditions coinciding with the brief fruiting period. These periods, in fact, seem so brief and critical that the timing by the gardeners of their weeding-cycle must also be quite a significant biotic factor. Indeed it may not be letting imagination run too wild to visualise a situation in which a strike among the gardeners, falling at the crucial stage in the fruiting of certain species, could at once materially alter the composition of the flora of Inner London.

By no means all species that have spread, however, fall into this category. A few, of which *Coronopus didymus* and *Mercurialis annua* are the outstanding examples, exhibit a more or less continuous distribution from bed to bed over a strictly limited area and show every sign of being in the process of slowly spreading year by year. This was no doubt also the case in the past with *Circaea lutetiana*, only a single plant of which was seen by Warren but which is now a common and most characteristic member of a group of shade colonists—others are *Silene dioica*, *Moehringia trinervia*, *Rubus separinus*, *Geum urbanum*, *Anthriscus sylvestris*, *Stachys sylvatica*, *Rumex sanguineus* and *Hieracium strimosum*—which all unnoticed have spread in and now provide the shrubberies with a peculiar flora of their own.

MODES OF INTRODUCTION

A further factor causing the flora to vary in composition from year to year is the variation in the means by which certain species are brought into the parks or redistributed within them once established. Imported soil, in particular, has shown itself to be far more important in this respect than is generally realised. For species not forming part of the regular flora of Inner London (and thus by inference brought in from afar) this seems in fact much the most important single means of introduction. In some cases the soil is evidently of alluvial origin, bringing in such unexpected species as *Polygonum hydropiper* and *Alopecurus geniculatus*. Other soil, such as that used widely for filling in various trenches and holes in the winter of 1961-62, must come from light, sandy arable ground, to judge by the sudden irruption of *Scleranthus annuus*, *Aphanes microcarpa*, *Kickxia spuria*, *K. elatine* and *Anthemis arvensis*. On the other hand it may be with soil attached to the roots of shrubs or bedding plants rather than with soil imported in the mass that *Montia perfoliata* and *Aegopodium podagraria* have been brought in. In one instance, even, the soil responsible for producing unusual weeds has almost certainly emanated from within the park itself: *Ranunculus scleratus*, *Rorippa islandica* and *Juncus bufonius* have all appeared for at least four years running in one border beside the Serpentine and seem most likely to have germinated from mud dredged up at some time from the lake bottom and strewn on the nearest beds.

The constant work of renovation, naturally varying in character and extent from year to year, does not merely involve new soil. After a long, dry summer, verges have to be extensively resown: in 1959 this produced a temporary profusion of *Hordeum secalinum*. Worn-out turf has to be replaced, old shrubberies replanted, diseased trees uprooted. The more botanically unpromising the alteration, it almost seems, the more outlandish the species introduced: the ring of soil at the base of a newly-planted tree has produced the only specimen of *Datura stramonium*, while fresh gravel brought in for repairing a path was presumably responsible for *Plantago maritima*.

A new major source of introduction, not or scarcely apparent at the time of Kent's survey, is the scattering of commercial seed mixtures now widely sold for feeding to birds. About a dozen species, including *Bupleurum lancifolium*, *Helianthus annuus*, *Salvia reflexa* and *Lolium rigidum*, have begun to appear from this cause, especially at the edges of paths. Birds themselves are doubtless responsible for the occasional plants of *Pisum sativum* and the solitary *Pastinaca sativa* that have also occurred on path-edges as well as more obviously for the berry-bearing shrubs and *Solanum* species. The rejectamenta of human snacks, on the other hand, seem the most probable origin of *Vitis vinifera*, *Rubus idaeus*, *Fragaria ananassa*, *Prunus avium*, *Malus sylvestris* and *Lycopersicon esculentum*.

Human footwear, as Clifford (1956) has demonstrated, is another extremely important means of dispersal. *Matricaria matricarioides* and *Juncus tenuis* are two species that no doubt entered and spread in this way, and the single path-side occurrence of *Vulpia bromoides* (which features in two of Clifford's lists) is also suggestive in this connection. Similarly, *Agrimonia eupatoria*, *Galium aparine* and the species of *Arctium* doubtless owe their presence and spread to country clothes worn in the parks, to the tramps for whom this is a popular east-west corridor, and to the shaggier types of dogs. The agency behind the great spread of *Circaea lutetiana*, already remarked upon, is problematical; it may have been dogs, birds or the gardeners themselves.

Lastly, one should not ignore the increasing variety of plants under cultivation in the parks, many with the chance of being thrown out and temporarily establishing themselves, like *Phaseolus coccineus* and *Mentha spicata*, others of running completely out of control, like *Oxalis corymbosa*, *Rubus procerus*, *Heracleum mantegazzianum* and *Polygonum cuspidatum*. These last are now, in effect, as much members of the weed flora as species that have come in from the wild.

LIST OF SPECIES

Many of the records in the following list have already been published, mostly without detailed localities, in Kent (1960, 1962). A large number of them have been made in the company of D. H. Kent and D. McClintock, to both of whom I am indebted for much help with determinations and for commenting on the manuscript of this paper. R. S. R. Fitter, J. E. Lousley, J. J. Potter and Miss R. Rønnaasen have also joined me in my searches on one or more occasions and I should like to take this opportunity of thanking them for their interest and assistance.

The following signs and abbreviations are used:—

- * Not recorded by Kent.
- ** Not recorded by either Kent or Warren.
- H. Hyde Park.
- K. Kensington Gardens.

Species which are frequent to abundant are listed without comment.

- *PTERIDIUM AQUILINUM (L.) Kuhn. H., K., seven records. Apparently increasing.
- **DRYOPTERIS FILIX-MAS (L.) Schott, K., walls round Magazine; one in stonework at head of Serpentine; two in enclosure W. of Albert Hall; one at Prince of Wales Gate.
- RANUNCULUS ACRIS L. H., K., here and there, only singly.
- R. REPENS L.
- *R. BULBOSUS L. H., Police Station lawn: lawn at Byron Statue.

- *R. *SCCELERATUS* L. H., patch in shrub border at S.-E. end of Serpentine bridge, 1958-62; one in dahlia border W. of Marble Arch, 1958. K. N. shores of Serpentine, 1958.
- ***PAPAVER RHOEAS* L. H., sporadic near Dorchester Hotel, 1958-61.
var. *STRIGOSUM* Boenn. H., one on waste ground W. of Marble Arch, 1962.
- ***P. SOMNIFERUM* L. H., K., singly or in patches in borders, mainly along the S. side of the parks. Probably a bird-seed derivative (included in mixtures as "Blue Maw").
- ***CORYDALIS LUTEA* (L.) DC. H., one on soil dump near Marble Arch, 1962.
- ***FUMARIA OFFICINALIS* L. H., several on waste ground by Marble Arch and on soil dump near Dorchester Hotel, 1962. K., one on soil dump N. of Magazine, 1961.
- ***BRASSICA OLERACEA* L. H., one on waste ground by Marble Arch, 1961.
Derived from bird-seed.
- ***B. RAPA* L. H., one in border by North Lodge, 1958; odd specimens in shrub borders by E. and W. ends of Serpentine bridge, 1962.
SINAPIS ARVENSIS L. Only recorded once by Warren, now common.
**f. *ORIENTALIS* (L.) Aschers. H., Bird Sanctuary, 1962.
S. ALBA L. H., three in shrubbery by Albert Gate, 1962.
- ***RAPHANUS RAPHANISTRUM* L. var. *RAPHANISTRUM* H., waste ground by Park Lane, 1960, and W. of Marble Arch, 1962.
var. *OCHROLEUCUS* (Stokes) Peterm. H., one on rubble at E. end of Rotten Row, 1961.
CORONOPUS SQUAMATUS (Forsk.) Aschers. H., patch beside Bayswater Road near Marble Arch, 1958-61. Also singly in five other places.
C. DIDYMUS (L.) Sm. H., locally plentiful in borders in the central part, gradually infiltrating into the eastern side of K.
CAPELLA BURSA-PASTORIS (L.) Medic.
- ***ARMORACIA RUSTICANA* Gaertn., Mey. & Scherb. H., Nursery tip, 1961.
K., one at edge of shrubbery near Hyde Park Gate, 1958-62.
- ***CARDAMINE HIRSUTA* L. H., one in dahlia border W. of Marble Arch, 1958.
K., shrub border by Lancaster Gate, 1961.
- ***BARBAREA VULGARIS* R.Br. H., two under railings by new subway opposite Grosvenor House, 1962.
RORIPPA SYLVESTRIS (L.) Bess. H., near Marble Arch and in border by Apsley House, 1958.
R. ISLANDICA (Oeder) Borbás. H., K., odd specimens by Serpentine and in Magazine-Bird Sanctuary area.
ERYSIMUM CHEIRANTHOIDES L. H., K., in several places, singly or in patches, 1960-62.
SISYMBRIUM OFFICINALE (L.) Scop.
var. *LEIOCARPUM* DC. H., several on waste ground by Park Lane and at Marble Arch, 1960-62, conspicuously greener and more robust than the more common plant.
- ***S. ORIENTALE* L. K., one in border E. of Lancaster Gate, 1961.
- ***S. ALTISSIMUM* L. H., three under railings by new subway opposite Grosvenor House, 1962, a very hirsute form with arcuate-recurved siliquae.

- ***ARABIDOPSIS THALIANA* (L.) Heynh. H., K., in various places in 1962.
- ***CLEOME SPINOSA* L. H., one on rubble at E. end of Rotten Row, 1962. K., several on soil dump N. of Magazine, 1961.
- ***RESEDA LUTEOLA* L. H., several on waste ground by Marble Arch, 1962. K., patch in border on S. side of Magazine.
- ***R. LUTEA* L. H., one on disturbed ground near North Lodge, 1960, a curious autumnal form (det. at Kew).
- ***VIOLA ARVENSIS* Murr. K., soil dumps N. of Magazine, 1961, and beside Temple Lodge, 1962.
- ***HYPERICUM PERFORATUM* L. K., one at edge of path by Black Lion Gate, 1960.
- SILENE VULGARIS* (Moench) Garcke. H., Bird Sanctuary. K., edge of lawn on E. bank of Serpentine; one in shrubbery by Black Lion Gate, 1959; one in turf between Round Pond and Palace, 1960.
- S. DIOICA* (L.) Clairv. H., still in the Bird Sanctuary, which was Kent's locality.
- S. ALBA* (Mill.) E. H. L. Krause. H., Nursery and Bird Sanctuary; singly near Marble Arch and Hyde Park Corner, 1958-62.
- CERASTIUM FONTANUM* subsp. *TRIVIALE* (Link) Jalas (*C. holosteoides* Fr.). H., K., here and there, including two different soil dumps. Usually singly, but in patches in turf on N.-W. bank of Serpentine.
- STELLARIA MEDIA* (L.) Vill.
- **S. GRAMINEA* L. H., two on new traffic island N. of Apsley House, 1961.
- **SAGINA APETALA* Ard. K., one large plant in a crevice beside the Fountains, 1961.
- S. PROCUMBENS* L. H., K., frequent on paths and in lawns. K., abundant on wall round sunken garden by Kensington Palace.
- MOEHRINGIA TRINERVIA* (L.) Clairv. H., enclosure by café, 1958. K., patch in shrubbery at W. end of Long Walk, 1961.
- **SPERGULA ARVENSIS* L. H., K., four solitary occurrences on new-laid soil.
- **SPERGULARIA RUBRA* (L.) J. & C. Presl. H., patches on soil dump by Dorchester Hotel, 1961, and on waste heaps by Marble Arch, 1961-62.
- ***SCLERANTHUS ANNUUS* L. K., new soil patches beside Temple Lodge and S.-E. of Speke Memorial, 1962.
- ***MONTIA PERFOLIATA* (Willd.) Howell. H., border at S.-W. end of Serpentine bridge, 1959-60. K., in plenty in tulip border by Victoria Gate, 1962.
- **CHENOPODIUM POLYSPERMUM* L. H., K., in many places, sometimes plentiful, especially in borders. Apparently increasing.
- C. ALBUM* L.
- C. FICIFOLIUM* Sm. Not uncommon in borders and on soil dumps. H., abundant in shrub border at S.-E. end of Serpentine bridge, 1960-62.
- **C. MURALE* L. H., one under railings near Marble Arch, 1962. K., several on soil dump N. of Magazine, 1961.

- C. RUBRUM L. H., K., seven records, in three cases under suspicion of introduction with mud from the Serpentine. Frequent among duck droppings beside Buckingham Palace lake.
- **BETA VULGARIS L. H., soil dump W. of Marble Arch, 1962.
- *ATRIPLEX PATULA L. H., K., six records.
- A. HASTATA L. Frequent. Only once recorded by Kent and not at all by Warren.
- *MALVA SYLVESTRIS L. H., K., on soil dumps and new-laid soil, mainly in 1959 and 1961.
- **M. NEGLECTA Wallr. K., one by Fountains, 1958.
- **M. PARVIFLORA L. K., one on soil dump N. of Magazine, 1961 (conf. J. E. LOUSLEY).
- **ALTHAEA ROSEA (L.) Cav. K., soil dump N. of Magazine, 1961-62; weed in border E. of Lancaster Gate.
- **LINUM USITATISSIMUM L. H., enclosure by café, 1958. K., path-side E. of Lancaster Gate, 1959. Derived from bird-seed.
- *GERANIUM MOLLE L. H., K., four records, mainly on new-laid soil.
- **OXALIS CORYMBOSA DC. H., K., border weed along N. edge of the parks, at intervals; also in Long Walk borders and Bird Sanctuary.
- ACER PSEUDOPLATANUS L.
- **AESCULUS HIPPOCASTANUM L. } K., seedlings in plantation on E. bank
 **ILEX AQUIFOLIUM L. } of Serpentine.
- **VITIS VINIFERA L. H., one on rubble at Hyde Park Corner, 1962.
- **LABURNUM ANAGYROIDES Medic. Occasional seedlings.
- MEDICAGO SATIVA L. H., one on roadside N. of Apsley House, 1962.
- M. LUPULINA L. H., K., ten records, mostly singly.
- **M. ARABICA (L.) Huds. H., one on waste ground by Marble Arch, 1962.
- MELILOTUS OFFICINALIS (L.) Pall. H., one on waste patch by Hyde Park Corner, 1962.
- TRIFOLIUM PRATENSE L.
- T. HYBRIDUM L. subsp. HYBRIDUM K., one in Magazine enclosure, 1958; one on soil dump N. of Magazine, 1962.
- T. REPENS L.
- T. DUBIUM Sibth. Five records. K., apparently established in turf beside Serpentine Road by café.
- *T. MICRANTHUM Viv. H., one on waste ground by Marble Arch, 1962.
- *LOTUS CORNICULATUS L. H., singly in enclosure by bandstand, 1959-61. K., several in lawn on E. bank of Serpentine and in turf between Round Pond and Palace. Large solitary plants in turf next to Magazine enclosure and on a verge by Black Lion Gate are of a distinct form (of alien origin?) simulating *L. tenuis* Waldst. & Kit., evidently introduced with grass seed.
- ROBINIA PSEUDOACACIA L. Occasional seedlings.
- *ORNITHOPUS PERPUSILLUS L. H., three on bare ground by Marble Arch with *Aphanes microcarpa*, 1962.
- *VICIA HIRSUTA (L.) Gray. H., K., one record each year, in different borders.
- V. CRACCA L. K., Magazine enclosure, 1958-61; soil dump N. of Magazine, 1961.
- V. ANGUSTIFOLIA L. H., two on waste ground W. of Marble Arch, 1962.

- **PHASEOLUS COCCINEUS L. K., soil dump N. of Magazine, 1961.
- **PISUM SATIVUM L. H., K., four records, mainly on path-sides, probably introduced by pigeons.
- **RUBUS IDAEUS L. K., one under thorn hedge at N.-E. corner of Serpentine.
- **R. LACINIATUS Willd. H., one on embankment by lido, 1961.
- **R. SEPARINUS Genev. H. Bird Sanctuary. K., abundant in enclosure on E. bank of Serpentine; Magazine enclosure; Temple Lodge (conf. E. S. EDEES & B. MILES). This is the "*Rubus* sp." of Kent's list. Curiously not in Buckingham Palace gardens, where the main species is *R. rubritinctus* W.C.R. Wats.
- **R. PROCERUS P. J. Muell. H., head of Serpentine; Bird Sanctuary. K., Temple Lodge; several in enclosure on E. bank of Serpentine (det. B. MILES). Erroneously listed in Kent (1960) as *R. pseudobifrons* Sudre.
- **R. sp. K., Magazine enclosure. Species unrecognised by E. S. EDEES or B. MILES.
- **POTENTILLA ANSERINA L. H., several round new subway exits at Marble Arch, 1962; one on track from Ranger's Lodge to Magazine, 1958. K., one in shrub border by Lancaster Gate, 1958.
- **P. ERECTA × REPTANS. H., patches on embankment E. of lido, 1962, a form of this cross closely resembling *P. anglica* Laichard., but not, I believe, the true *P. anglica*. K., one on rough lawn next to Dog's Cemetery, 1958, a very small-flowered plant at first recorded as *P. erecta* (L.) Rausch. (Kent, 1960) but now considered more probably a form of this cross; I have seen similar plants on bombed sites.
- P. REPTANS L.
- **FRAGARIA ANANASSA Duch. H., one on path-side near Speakers' Corner, 1961.
- **GEUM URBANUM L. K., two at edge of shrubbery N. of Temple Lodge, 1958.
- AGRIMONIA EUPATORIA L. K., one among bushes on N.-E. bank of Serpentine.
- *APHANES MICROCARPA (Boiss. & Reut.) Rothm. H., large patch on bare ground by Marble Arch, 1962. K., on soil patches beside Temple Lodge and S.-E. of Speke Memorial, 1962. Warren recorded *A. arvensis* in the aggregate sense.
- [ROSA sp. The unidentified bushes mentioned by Kent (actually pubescent-leaved *R. canina* L.) have clearly been planted.]
- **PRUNUS SPINOSA L. H., Magazine enclosure.
- **P. AVIUM (L.) L. K., seedlings on N.-E. side of Serpentine and near cafe.
- **P. AMYGDALUS Batsch. H., seedling on rubble by Hyde Park Corner (det. D. McCLINTOCK).
- **CRATAEGUS MONOGYNA Jacq. Seedlings occur. K., bush among rubble in Magazine enclosure.
- **MALUS SYLVESTRIS subsp. MITIS (Wallr.) Mansf. H., seedling on new traffic island N. of Apsley House, 1961.
- **RIBES UVA-CRISPA L. K., two among bushes on N.-E. side of Serpentine.

- EPILOBIUM HIRSUTUM* L. H., K., nine records, including an albino plant by Lancaster Gate in 1961. Not recorded by Warren.
- E. PARVIFLORUM* Schreb. K., one in shrub border by Lancaster Gate, 1961.
- E. MONTANUM* L. Only once recorded by Warren, now common.
- ***E. MONTANUM* × *ROSEUM*. K., enclosure N. of Temple Lodge, 1958 (det. G. M. ASH).
- E. ROSEUM* Schreb. K., around the Fountains and in nearby enclosure N. of Temple Lodge; W. of Black Lion Gate, 1960.
- E. ADENOCAULON* Hausskn.
- E. OBSCURUM* Schreb. Only once recorded by Warren, now not uncommon.
- CHAMAENERION ANGUSTIFOLIUM* (L.) Scop.
- ***OENOTHERA BIENNIS* L. H., Hyde Park Corner extension, 1961-62.
- ***O. PARVIFLORA* L. H., with the above, 1961-62.
- CIRCAEA LUTETIANA* L.
- **MYRIOPHYLLUM SPICATUM* L. K., Round Pond, in profusion from 1959 onwards.
- ***HEDERA HELIX* L. Introduced, now running wild.
- ***ANTHRISCUS CAUCALIS* Bieb. H., one in turf between Serpentine and Dorchester Hotel, 1961.
- A. SYLVESTRIS* (L.) Hoffm. H., Bird Sanctuary. K., a large and increasing colony between Lancaster and Victoria Gates; one in enclosure on W. side of Serpentine, 1961.
- ***CAUCALIS* sp. H., one under railings of shrub border N. of lido, 1962 (unfortunately lost in post when being sent in for the species to be determined). A bird-seed derivative.
- ***CONIUM MACULATUM* L. H., six records, most notably in two places in turf by Ranger's Lodge. Apparently increasing.
- ***BUPLEURUM LANCIFOLIUM* Hornem. H., K., single specimens under railings on W. bank of Serpentine, 1962 (conf. D. McCLINTOCK).
- **CONOPODIUM MAJUS* (Gouan) Loret. K., small patch in late-cut grass midway between Lancaster Gate and Fountains. Common and widely distributed in the Gardens in 1871, according to Warren.
- ***AEGOPODIUM PODAGRARIA* L. K., one in shrub border by Lancaster Gate, 1958-61.
- AETHUSA CYNAPIUM* L.
- ***PASTINACA SATIVA* L. var. *SATIVA*. K., one under railings by cafe, 1961.
- HERACLEUM SPHONDYLIIUM* L. H., four records, all singly except for a patch by road near Prince of Wales Gate.
- H. MANTEGAZZIANUM* Somm. & Levier. Now spread to: H., Bird Sanctuary. K., opposite Lancaster Gate Station; turf near Queen's Gate.
- **MERCURIALIS ANNUA* L. H., now very widespread. K., as yet only in borders by the Fountains.
- **EUPHORBIA HELIOSCOPIA* L. H., K., four records, including several under railings along Park Lane, 1962.
- **E. PEPLUS* L. H., common at S. end of Serpentine bridge. K., in borders round the outer edges of the Gardens, in places abundantly.

- **E. EXIGUA L. K., new soil patches beside Temple Lodge and S.-E. of Speke Memorial, with *Scleranthus annuus*, *Kickxia elatine*, etc., 1962.
- POLYGONUM AVICULARE L.
- **P. ARENASTRUM Bor. Commoner than the preceding species.
- *P. AMPHIBIUM L. H., patch in turf on Crystal Palace site near bowling greens. K., patch at water's edge at end of lawn on E. bank of Serpentine (Warren's locality).
- P. PERSICARIA L.
- P. LAPATHIFOLIUM L. H., several records, especially plentiful along new road parallel to Park Lane, 1962.
- *P. HYDROPIPER L. H., one on soil dump opposite Dorchester Hotel, 1960. K., one on soil dump N. of Magazine, 1961.
- P. CONVULVULUS L. Common according to Kent, now only occasional. Only recorded once by Warren.
- **P. CUSPIDATUM Sieb. & Zucc.
- **P. POLYSTACHYUM Wall. ex Meisn. K., several at back of long Walk shrubbery N. of Palace Gate.
- RUMEX ACETOSELLA L. H., K., seven records.
- **R. TENUFOLIUS (Wallr.) Löve. K., patch in old turf above path on E. side of Serpentine (conf. J. E. LOUSLEY). New to v.c. 21.
- *R. ACETOSA L. H., E. side of Serpentine from the bridge to past the lido, and elsewhere. K., by Lancaster Gate, 1958.
- R. CRISPUS L. H., four records.
- R. OBTUSIFOLIUS L.
- *R. SANGUINEUS var. VIRIDIS Sibth. H., plentiful in Bird Sanctuary. K., shady enclosures on N.-E. side of Serpentine and N. of Temple Lodge.
- URTICA URENS L. Now widespread.
- U. DIOICA L.
- **PLATANUS × HYBRIDA Brot. H., seedlings in beds and on waste ground near Hyde Park Corner.
- **BETULA PENDULA Roth. H., two on waste patches near Hyde Park Corner, 1962.
- **B. PENDULA × PUBESCENS. Planted birches seem to be this. H., K., solitary seedlings in Bird Sanctuary and Magazine enclosure. This is probably the "*Betula* sp." of Kent's list.
- **CARPINUS BETULUS L. K., seedling under hedge of enclosure on E. bank of Serpentine.
- **CASTANEA SATIVA Mill. K., seedlings in border E. of Lancaster Gate and beside Magazine, 1960-62.
- **QUERCUS CERRIS L. H., waste ground W. of Marble Arch, 1962.
- Q. ROBUR L.
- *SALIX CAPREA L. H., waste ground round Hyde Park Corner and Marble Arch, 1961-62. K., bush in Magazine enclosure; seedling on path-side between Victoria and Lancaster Gates, 1960.
- **S. AURITA × CINEREA. H., two among rubble by Hyde Park Corner, 1962 (det. R. D. MEIKLE).
- *ANAGALLIS ARVENSIS L. H., K., eight records, especially on new-laid soil.

- **BUDDLEJA DAVIDII Franch. H., waste ground near Marble Arch, 1961; patch at E. end of Rotten Row, 1961-62.
- *FRAXINUS EXCELSIOR L. H., K., occasional seedlings, including in stonework at both ends of Serpentine.
- **HELIOTROPIMUM PERUVIANUM L. K., soil dump N. of Magazine, 1961.
- *CONVOLVULUS ARVENSIS L. H., six records. K., by Alexandra Gate, 1958.
- *CALYSTEGIA SEPIUM (L.) R.Br. H., Bird Sanctuary. K., in several places. on shrubs and palings, near Hyde Park Gate; on shrubs on N.-W. margin of Serpentine; and elsewhere. Kent recorded only *C. silvatica* (Kit.) Griseb.
- **HYOSCYAMUS NIGER L. H., about twenty rosettes on newly-levelled ground over new car-park, 1962.
- **LYCOPERSICON ESCULENTUM Mill.
SOLANUM DULCAMARA L. Frequent. K., especially plentiful round N. half of Serpentine.
S. NIGRUM L.
S. TUBEROSUM L. H., one under railings of The Dell, 1960; three on waste heaps by Marble Arch, 1961.
- **DATURA STRAMONIUM L. H., one in soil at base of isolated tree near Bird Sanctuary, 1961, combining a purple corolla (f. *TATULA* (L.) Blytt) with spineless capsules (var. *INERMIS* (Jacq.)). These variants are due to a single dominant and a single recessive gene respectively (Avery, Satina & Rietsema, 1959).
- **NICOTIANA TABACUM L. H., shrubbery by flyover, 1962. K., one on soil dump N. of Magazine, 1961.
- **VERBASCUM PHLOMOIDES L. H., Hyde Park Corner area, 1960-62 (det. D. McCLINTOCK). K., several in border at E. side of Serpentine bridge, 1958.
- **V. VIRGATUM Stokes. H., one among rubble below flyover, Hyde Park Corner, 1962 (det. D. McCLINTOCK).
- **ANTIRRHINUM MAJUS L. H., singly in Hyde Park Corner area, 1960-62.
- **LINARIA PURPUREA (L.) Mill. K., one in shrubbery at E. end of Serpentine bridge, 1961.
- **KICKXIA SPURIA (L.) Dum. H., four on waste ground W. of Marble Arch, 1962.
- **K. ELATINE (L.) Dum. K., several on soil patches, beside Temple Lodge and S.-E. of Speke Memorial, 1962.
- *SCROPHULARIA AQUATICA L. H., one large plant in stone bowl outside North Lodge, 1960.
- **MIMULUS MOSCHATUS Dougl. ex Lindl. K., weed in borders by Albert Memorial.
- **DIGITALIS PURPUREA L. H., Bird Sanctuary; waste ground N. of Apsley House, 1961. Horticultural forms only.
- **VERONICA SERPYLLIFOLIA L. H., one on waste ground by Marble Arch, 1962. K., patch on new soil strip S.-E. of Speke Memorial, 1962.
- *V. ARVENSIS L. H., several in disused frames in the Nursery, 1961; one on bare ground by Marble Arch, 1962.
- V. PERSICA Poir. H., K., eight records.

- *V. POLITA Fr. H., one in shrub border by E. end of Serpentine bridge, 1961.
- *V. AGRESTIS L. H., one in dahlia border W. of Marble Arch, 1958. K., one on path-side by N.-W. end of Serpentine, 1958.
- **VERBENA × HYBRIDA Groenl. & Rumpl. H., occasional stray plants at Hyde Park Corner end.
- **V. PATAGONICA Moldenke (*V. bonariensis* auct.). H., waste ground near Hyde Park Corner, 1961-62. K., weed in Long Walk border; several on soil dump N. of Magazine, 1961 (det. D. McCLINTOCK, as *V. bonariensis*).
- **MENTHA ARVENSIS L. K., two in shrub border by Lancaster Gate, 1958; new soil strip S.-E. of Speke Memorial, 1962.
- **M. SPICATA L. K., one in Magazine enclosure, 1958.
- *LYCOPUS EUROPAEUS L. H., K., scattered around margins of Serpentine. H., one in long grass by bowling greens, 1958.
- **SALVIA REFLEXA Hornem. H., patch under railings N.-W. of lido and on new traffic island by Dorchester Hotel, 1962 (det. D. McCLINTOCK).
- *PRUNELLA VULGARIS L. H., K., eight stations, mainly in short turf in patches. Especially abundant in turf by Knightsbridge near Albert Gate.
- **STACHYS ARVENSIS (L.) L. H., one beside temporary hut by Marble Arch, 1962.
- S. SYLVATICA L. K., shrubbery N. of Temple Lodge, 1958; patch in Long Walk shrubbery N. of Hyde Park Gate.
- **BALLOTA NIGRA subsp. FOETIDA Hayek. H., K., eleven records, mostly in the central part of both parks. Apparently increasing.
- **LAMIUM AMPLEXICAULE L. H., five records, mostly singly. K., in various places between Lancaster and Victoria Gates since 1959.
- *L. PURPUREUM L. Widespread since 1960.
- **L. ALBUM L. H., Bird Sanctuary, 1960-62. K., several in border E. of Lancaster Gate, 1960-61.
- **GALEOPSIS BIFIDA Boenn. H., new soil patch by Ranger's Lodge, 1958. K., shrub border by Lancaster Gate, 1958.
- PLANTAGO MAJOR L.
- **P. MEDIA L. K., two in turf on W. bank of Serpentine, 1959-61.
- P. LANCEOLATA L.
- **P. MARITIMA L. H., two in half-overgrown margin of gravel path beside bowling greens, 1959. New to v.c. 21.
- *GALIUM VERUM L. K., one on path-side S.-E. of Palace, 1958; large patch in Orangery lawn.
- G. APARINE L.
- **SAMBUCUS NIGRA L. Not uncommon.
- DIPSACUS FULLONUM L. subsp. FULLONUM. K., one in enclosure on E. bank of Serpentine, 1961 (also recorded here by both Kent and Warren); five on soil dump N. of Magazine, 1961-62.
- **RUDBECKIA BICOLOR Nutt. K., soil dump N. of Magazine, 1961 (det. D. McCLINTOCK).
- **HELIANTHUS ANNUUS L. H., one by subway by Marble Arch, 1962. K., one in pavement crevice by Fountains, 1961.

- GALINSOGA PARVIFLORA Cav. H., K., eight records, especially on S. side of parks.
- G. CILIATA (Raf.) Blake. H., K., rather more widespread than *G. parviflora*.
- **SENECIO JACOBAEA L. H., K., six records, all singly, on soil and in turf.
- S. SQUALIDUS L.
- **S. SQUALIDUS × VULGARIS. H., one in lodge garden by Dorchester Hotel, 1960 (conf. D. H. KENT).
- S. VISCOSUS L. K., around Magazine enclosure. Four other records.
- S. VULGARIS L.
- TUSSILAGO FANFARA L.
- [PULICARIA DYSENTERICA (L.) Bernh. K., by railings almost opposite Albert Hall, 1961, too immature for certain determination. Probably correct, as since found in long grass in Green Park.]
- *GNAPHALIUM ULIGINOSUM L. H., K., in various places in 1962 on newly-deposited soil.
- **ASTER NOVAE-ANGLIAE L. K., by the Fountains, 1958.
- **A. NOVI-BELGII L. H., waste ground by Marble Arch and Hyde Park Corner, 1961.
- CONYZA CANADENSIS (L.) Cronq.
- BELLIS PERENNIS L.
- **ANTHEMIS ARVENSIS L. K., one on disturbed patch N. of Magazine, and one on soil patch beside Temple Lodge, 1962.
- [*CHAMAEMELUM NOBILE (L.) All. K., several patches in lawn on S. side of Palace. Last reported there in 1871, when only one patch was noted. Doubtless originally planted, as also at Buckingham Palace, Hampton Court and Bushey Park].
- ACHILLEA MILLEFOLIUM L.
- TRIPLEUROSPERMUM MARITIMUM subsp. INODORUM (L.) Hyland. ex Vaarama.
- MATRICARIA RECUTITA L. Very rare in Warren's time, now common.
- M. MATRICARIOIDES (Less.) Porter.
- *CHRYSANTHEMUM LEUCANTHEMUM L. H., three records, all singly. K., here and there in turf, especially on E. bank of Serpentine.
- C. PARTHENIUM (L.) Bernh. H., Bird Sanctuary; border by Serpentine bridge. K., shrubberies by Black Lion Gate and on S. side of Palace.
- ARTEMISIA VULGARIS L. H., one in shrubbery by Albert Gate, 1958; several on waste ground near Marble Arch, 1960-62. K., shrubbery near Fountains, 1959.
- **ARCTIUM NEMOROSUM Lej. H., colony in Bird Sanctuary, in light shade.
- A. MINUS Bernh. H., patches on both sides of Serpentine; enclosure by café. K., W. bank of Serpentine. Increasing.
- **CARDUUS NUTANS L. K., one on soil dump N. of Magazine, 1961.
- CIRSIIUM VULGARE (Savi) Ten.
- C. ARVENSE (L.) Scop.
- **CENTAUREA NIGRA L. H., turf by Bird Sanctuary; one in grass by Grosvenor House, 1958. K., alongside Bayswater Road W. of Lancaster Gate; turf near Hyde Park Gate; edge of lawn on E. bank of Serpentine. Apparently increasing.

- **C. NEMORALIS Jord. K., patch at N.-E. corner of Serpentine.
LAPSANA COMMUNIS L.
HYPOCHOERIS RADICATA L.
LEONTODON AUTUMNALIS L. H., two records. K., plentiful in lawn by Serpentine bridge; frequent along railings opposite Albert Hall.
- **L. TARAXACOIDES (Vill.) Mérat. H., two on embankment E. of lido; one on waste ground by Marble Arch, 1962.
- **PICRIS ECHIOIDES L. H., one 4 ft. tall on waste ground by Hyde Park Corner flyover, 1961; one in new-laid turf, Marble Arch, 1962.
TRAGOPOGON PRATENSIS subsp. MINOR (Mill.) Wahlenb. K., two patches in late-mown grass, at Alexandra Gate and by Queen's Gate Lodge.
LACTUCA SERRIOLA L. H., one on waste ground by Marble Arch, 1962. K., one by Lancaster Gate, 1960.
SONCHUS ARVENSIS L.
S. OLERACEUS L.
S. ASPER (L.) Hill. H., K., six records, always singly.
- **HIERACIUM sp. K., patch by road between Palace Gate and Hyde Park Gate, 1958-59, mown before fully developed but "probably" H. LEPIDULUM (Stenstr.) Omang (det. P. D. SELL & C. WEST), which has also occurred in Buckingham Palace gardens.
- **H. STRUMOSUM (W. R. Linton) A. Ley. H., patch at back of Bird Sanctuary, overlooking greenhouses (det. B. MILES).
- **H. VAGUM Jord. H., one in long grass near Speakers' Corner, 1960 (det. P. D. SELL).
- **CREPIS VESICARIA subsp. TARAXACIFOLIA (Thuill.) Thell. H., several on waste ground along E. edge of park, 1961-62.
- *C. CAPILLARIS (L.) Wallr. H., K., five records, mainly singly.
TARAXACUM OFFICINALE Weber.
- *T. LAEVIGATUM (Willd.) DC. H., patch in turf between Serpentine and Park Lane; near Police Station. K., frequent on path and in turf, Buck Hill.
POTAMOGETON PUSILLUS L. K., Round Pond (originally det. J. E. DANDY).
P. CRISPUS L. K., Round Pond.
ZANNICHELLIA PALUSTRIS L. K., Round Pond, abundant in 1958, reappearing sparingly in 1962.
- **JUNCUS TENUIS Willd. K., over two dozen tufts in a fifty-yard stretch of turf between Round Pond and Lancaster Gate, since 1958; about four tufts in worn turf S. of Palace. In none of the other central parks, but recently found in Buckingham Palace gardens.
- *J. BUFONIUS L. H., patch in shrub border by E. end of Serpentine bridge; one on waste ground by Marble Arch, 1962. K., one in shrub border by Lancaster Gate, 1958; several on new soil strip S.-E. of Speke Memorial, 1962.
- *J. INFLEXUS L. H., one at edge of pavement next to Apsley House, within former boundary of park, 1962. K., planted in pools at the Fountains, whence occasionally self-sown nearby—doubtless the source of Kent's 1947 record.
- J. EFFUSUS L. K., several in old turf N.-E. of Round Pond and S. of Palace; one among *Carex hirta* in front of Temple Lodge.
- **J. CONGLOMERATUS L. K., one tuft among many *J. effusus* in moist turf between Round Pond and Lancaster Gate.

- LUZULA CAMPESTRIS (L.) DC. K., patches among bluebells in late-mown grass, by Albert Memorial and W. of Queen's Gate.
- [**CAREX ACUTIFORMIS Ehrh. K., several patches along N.-E. margin of Serpentine. Presumably planted. Also by Buckingham Palace lake.]
- C. HIRTA L. H., K., patches in nine places, in turf or long grass or (by Park Lane) on waste ground. Apparently increasing.
- **C. SPICATA Huds. H., Bird Sanctuary, 1962. K., six tufts beside Magazine enclosure, 1960-62.
- *C. MURICATA L. H., nine tufts on traffic island N. of Apsley House, 1961-62 (conf. J. E. LOUSLEY).
- C. OVALIS Gooden. Patches in old turf: H., between New Lodge and café. K., in six places E. and N.-E. of Round Pond. Apparently increasing.
- [**GLYCERIA MAXIMA (Hartm.) Holmb. K., beside Serpentine on E. side by bridge (foliage only, conf. A. MELDERIS). Presumably planted, although there was a previous Serpentine record in 1813. Also by Buckingham Palace lake.]
- *FESTUCA PRATENSIS Huds. H., K., locally abundant in turf in various places. Apparently much sown.
- **F. ARUNDINACEA Schreb. H., colony in uncut grass by flyover; patches in turf, near Speakers' Corner, 1960, and at head of Serpentine; one on waste heaps near Marble Arch, 1961.
- *F. RUBRA L. H., K., frequent in dry turf.
- **F. TENUIFOLIA Sibth. K., turf about Round Pond (det. J. E. LOUSLEY), misreported as *F. ovina* L. in Kent (1960). Warren reported *F. ovina*, doubtless in an aggregate sense, which may well have been this.
- LOLIUM PERENNE L.
- L. MULTIFLORUM Lam. H., one by Ranger's Lodge, 1958; one by Park Lane railings, 1960. Greatly decreased.
- **L. RIGIDUM Gaud. H., new traffic island by Dorchester Hotel, 1962 (det. D. McCLINTOCK).
- *VULPIA BROMOIDES (L.) Gray. H., one on path-edge near bandstand, 1961.
- POA ANNUA L.
- P. NEMORALIS L. H., K., singly on soil dumps and in shady borders; in 1961 in quantity along edge of shrubbery at E. end of Long Walk, clearly sown.
- P. PRATENSIS L. Locally abundant in late-mown areas.
- P. TRIVIALIS L. Widespread and locally abundant.
- **P. PALUSTRIS L. H., several on waste heaps by Marble Arch, 1961 (conf. J. E. LOUSLEY and A. MELDERIS). By head of Serpentine, 1962 (LADY A. BREWIS, conf. J. E. LOUSLEY).
- DACTYLIS GLOMERATA L.
- CYNOSURUS CRISTATUS L.
- BROMUS STERILIS L. K., two patches under boundary railings N. of Palace; two on site of new lodge, Orme Gate, 1962. Greatly decreased.
- B. MOLLIS L. K., one by road near Queen's Gate, 1959; patch on path by Magazine, 1960. In Warren's time this was thinly but generally distributed in the turf. Greatly decreased even since 1949.

- AGROPYRON REPENS (L.) Beauv.
- **A. DESERTORUM (Fisch.) Schult. H., patch on traffic island N. of Apsley House, 1962 (det. A. MELDERIS). New to British list.
- **TRITICUM AESTIVUM L. H., singly or in patches, near Marble Arch and Hyde Park Corner, 1961-62.
- SECALE CEREALE L. H., one on rubble at E. end of Rotten Row, 1962 (det. D. H. KENT).
- HORDEUM SECALINUM Schreb. H., K., persistent on various verges, where it was widely sown after the 1959 drought.
- H. MURINUM L. Now only occasional.
- **H. DISTICHON L. H., one in shrubbery by Albert Gate, 1961 (det. A. MELDERIS); waste ground by Speakers' Corner, with *Triticum aestivum*, 1962.
- *TRisetum FLAVESCENS (L.) Beauv. H., K., locally abundant in turf, especially S. and W. of Fountains.
- AVENA SATIVA L. H., several with *Triticum aestivum* by Speakers' Corner, 1962.
- ARRHENATHERUM ELATIUS (L.) Beauv. ex J. & C. Presl. K., patch in border E. of Lancaster Gate, 1960.
- HOLCUS LANATUS L. H., K., five records.
- *H. MOLLIS L. K., turf between Physical Energy and Bayswater Road, in several places and locally abundant; plentiful under boundary railings N. of Palace.
- *DESCHAMPSIA FLEXUOSA (L.) Trin. K., old turf S.-W. of Lancaster Gate (very poorly developed due to constant trampling, conf. A. MELDERIS).
- AGROSTIS TENUIS Sibth.
- A. GIGANTEA Roth. H., K., three records.
- *A. STOLONIFERA L. var. STOLONIFERA. Frequent.
- **var. PALUSTRIS (Huds.) Farw. K., margin of Serpentine on E. side near bridge (conf. A. MELDERIS).
- *APERA SPICA-VENTI (L.) Beauv. H., several in shrubbery by bandstand, 1961.
- PHLEUM BERTOLONII DC. H., K., frequent in turf, especially on verges. Not recorded by Warren.
- **P. PRATENSE L. H., K., five records, including on dumps and resown verges.
- *ALOPECURUS MYOSUROIDES Huds. H., one on rubble at E. end of Rotten Row, 1961; one on soil dump near Marble Arch, 1962.
- A. PRATENSIS L.
- **A. GENICULATUS L. K., abundant in marshy turf midway between Physical Energy and Fountains since 1959, when apparently brought in with soil; new-laid soil S. of Palace, 1959.
- *ANTHOXANTHUM ODORATUM L. H., K., four places in turf, also twice on soil dumps.
- **PHALARIS CANARIENSIS L. H., K., six records, including continuously, 1958-61, in shrub border at S.-E. end of Serpentine bridge.
- **SETARIA VIRIDIS (L.) Beauv. H., patch on new traffic island by Dorchester Hotel, 1962.
- **S. ITALICA (L.) Beauv. H., opposite Dorchester Hotel, 1962.

**PANICUM MILEACEUM L. H., singly on disturbed ground by Dorchester Hotel, 1959, 1962; patch near Marble Arch, 1960. K., one among paving stones by Fountains, 1961.

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