

## Survey Summary

### Petersfield Heath (Heath Common) Jan 1993

#### Site Details

Grid Reference :	SU75502290	File Reference :	72-0161
Total Area :	37.8 ha		
Civil Parish :	Petersfield		
District :	East Hampshire		
Vice-County :	11, South Hampshire		

#### Survey Details

Survey Type :	None
Survey Date :	Jan 1993
Survey Time on Site :	Not recorded
Data Owned By :	Francis Rose
Data Recorded By :	Francis Rose

#### Site Summary

A site which was once part of an extensive heath. The site now includes a pond, extensive open grassland with areas of remnant heath, mixed woodland and many bronze age barrows. An hcc management plan intends to restore the site to heathland.

#### Site Designations

##### Designation

Site of Importance for Nature Conservation

#### Site Features

<u>Type</u>	<u>Description</u>
Geology	Folkstone Beds
Geology	Sandgate Beds

#### Priority Habitats

None recorded

#### Notable Species

<u>Taxon Name</u>	<u>Common Name</u>	<u>Status</u>
<i>Calluna vulgaris</i>	Heather	IUCN (EN2014) - Near Threatened
<i>Crassula tillaea</i>	Mossy Stonecrop	Hampshire BAP Species Nationally Scarce
<i>Hydrocotyle vulgaris</i>	Marsh Pennywort	IUCN (EN2014) - Near Threatened
<i>Nardus stricta</i>	Mat-grass	IUCN (EN2014) - Near Threatened

<i>Poa bulbosa</i>	Bulbous Meadow-grass	Hampshire BAP Species Nationally Scarce County Scarce South Hampshire Scarce (VC11)
<i>Potentilla erecta</i>	Tormentil	IUCN (EN2014) - Near Threatened
<i>Ranunculus flammula</i>	Lesser Spearwort	IUCN (EN2014) - Vulnerable
<i>Spergula arvensis</i>	Corn Spurrey	IUCN (EN2014) - Vulnerable IUCN (2001) - Vulnerable
<i>Succisa pratensis</i>	Devil's-bit Scabious	IUCN (EN2014) - Near Threatened
<i>Trifolium glomeratum</i>	Clustered Clover	Nationally Scarce

HBIC

## Survey Details

### Petersfield Heath (Heath Common) Jan 1993

#### Habitats Recorded

##### Phase 1 Habitat Classifications

D, Heathland  
G1, Open water: standing water  
A111, Woodland: broadleaved, semi-natural  
B212, Grassland: neutral, unimproved, lowland  
D1, Heathland: dry dwarf shrub heath

##### Area

28.8 ha  
9 ha

#### Species Recorded

<u>Taxon Name</u>	<u>Taxon Common Name</u>	<u>Present</u>	<u>Notable</u>
<i>Acer pseudoplatanus</i>	Sycamore	P	
<i>Achillea millefolium</i>	Yarrow	P	
<i>Aegopodium podagraria</i>	Ground-elder	P	
<i>Agrostis canina</i>	Velvet Bent	P	
<i>Agrostis capillaris</i>	Common Bent	P	
<i>Agrostis stolonifera</i>	Creeping Bent	P	
<i>Aira praecox</i>	Early Hair-grass	P	
<i>Aphanes australis</i>	Slender Parsley-piert	P	
<i>Apium nodiflorum</i>	Fool's-water-cress	P	
<i>Arrhenatherum elatius</i>	False Oat-grass	P	
<i>Artemisia vulgaris</i>	Mugwort	P	
<i>Aster novi-belgii</i>	Confused Michaelmas-daisy	P	
<i>Betula pendula</i>	Silver Birch	P	
<i>Betula pubescens</i>	Downy Birch	P	
<i>Bidens tripartita</i>	Trifid Bur-marigold	P	
<i>Calluna vulgaris</i>	Heather	P	Y
<i>Calystegia sepium</i>	Hedge Bindweed	P	
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	P	
<i>Carex hirta</i>	Hairy Sedge	P	
<i>Chenopodium album</i>	Fat-hen	P	
<i>Chenopodium rubrum</i>	Red Goosefoot	P	
<i>Cirsium arvense</i>	Creeping Thistle	P	
<i>Crassula tillaea</i>	Mossy Stonecrop	P	Y
<i>Crataegus monogyna</i>	Hawthorn	P	
<i>Crepis capillaris</i>	Smooth Hawk's-beard	P	
<i>Cytisus scoparius</i>	Broom	P	
<i>Dactylis glomerata</i>	Cock's-foot	P	
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	P	
<i>Digitalis purpurea</i>	Foxglove	P	
<i>Dryopteris dilatata</i>	Broad Buckler-fern	P	
<i>Dryopteris filix-mas</i>	Male-fern	P	
<i>Elytrigia repens</i>	Common Couch	P	
<i>Epilobium ciliatum</i>	American Willowherb	P	
<i>Epilobium hirsutum</i>	Great Willowherb	P	
<i>Epilobium parviflorum</i>	Hoary Willowherb	P	
<i>Erodium cicutarium</i>	Common Stork's-bill	P	
<i>Fagus sylvatica</i>	Beech	P	
<i>Festuca filiformis</i>	Fine-leaved Sheep's-fescue	P	

<b><u>Taxon Name</u></b>	<b><u>Taxon Common Name</u></b>	<b><u>Present</u></b>	<b><u>Notable</u></b>
<i>Festuca rubra</i>	Red Fescue	P	
<i>Galium saxatile</i>	Heath Bedstraw	P	
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill	P	
<i>Geranium molle</i>	Dove's-foot Crane's-bill	P	
<i>Glyceria maxima</i>	Reed Sweet-grass	P	
<i>Gnaphalium uliginosum</i>	Marsh Cudweed	P	
<i>Heracleum sphondylium</i>	Hogweed	P	
* <i>Holcus mollis</i>	Creeping Soft-grass	P	
# <i>Hydrocotyle vulgaris</i>	Marsh Pennywort	P	Y
<i>Hypericum perforatum</i>	Perforate St John's-wort	P	
<i>Hypochaeris radicata</i>	Cat's-ear	P	
* <i>Ilex aquifolium</i>	Holly	P	
<i>Iris pseudacorus</i>	Yellow Iris	P	
<i>Juncus articulatus</i>	Jointed Rush	P	
<i>Juncus bufonius</i>	Toad Rush	P	
<i>Juncus effusus</i>	Soft-rush	P	
<i>Juncus inflexus</i>	Hard Rush	P	
<i>Juncus squarrosus</i>	Heath Rush	P	
<i>Lamium album</i>	White Dead-nettle	P	
<i>Ligustrum vulgare</i>	Wild Privet	P	
<i>Linaria vulgaris</i>	Common Toadflax	P	
<i>Lonicera periclymenum</i>	Honeysuckle	P	
<i>Luzula campestris</i>	Field Wood-rush	P	
<i>Lycopus europaeus</i>	Gypsywort	P	
<i>Malva moschata</i>	Musk-mallow	P	
<i>Matricaria discoidea</i>	Pineappleweed	P	
<i>Mentha aquatica</i>	Water Mint	P	
<i>Mentha arvensis x aquatica</i> = <i>M. x verticillata</i>	Whorled Mint	P	
<i>Mercurialis annua</i>	Annual Mercury	P	
# <i>Molinia caerulea</i>	Purple Moor-grass	P	
<i>Myosotis scorpioides</i>	Water Forget-me-not	P	
# <i>Nardus stricta</i>	Mat-grass	P	Y
<i>Ornithopus perpusillus</i>	Bird's-foot	P	
<i>Papaver rhoeas</i>	Common Poppy	P	
<i>Persicaria amphibia</i>	Amphibious Bistort	P	
<i>Persicaria hydropiper</i>	Water-pepper	P	
<i>Persicaria lapathifolia</i>	Pale Persicaria	P	
<i>Persicaria maculosa</i>	Redshank	P	
<i>Phragmites australis</i>	Common Reed	P	
<i>Pinus sylvestris</i>	Scots Pine	(P)	
<i>Plantago coronopus</i>	Buck's-horn Plantain	P	
<i>Plantago lanceolata</i>	Ribwort Plantain	P	
<i>Plantago major</i>	Greater Plantain	P	
<i>Poa annua</i>	Annual Meadow-grass	P	
<i>Poa bulbosa</i>	Bulbous Meadow-grass	P	Y
<i>Poa humilis</i>	Spreading Meadow-grass	P	
<i>Poa pratensis</i>	Smooth Meadow-grass	P	
<i>Polygonum aviculare</i>	Knotgrass	P	
<i>Potentilla erecta</i>	Tormentil	P	Y
<i>Pteridium aquilinum</i>	Bracken	P	
<i>Pulicaria dysenterica</i>	Common Fleabane	P	
<i>Quercus robur</i>	Pedunculate Oak	P	
<i>Ranunculus flammula</i>	Lesser Spearwort	P	Y
<i>Ranunculus repens</i>	Creeping Buttercup	P	
<i>Rhododendron ponticum</i>	Rhododendron ponticum	P	
<i>Rorippa sylvestris</i>	Creeping Yellow-cress	P	

<b><u>Taxon Name</u></b>	<b><u>Taxon Common Name</u></b>	<b><u>Present</u></b>	<b><u>Notable</u></b>
<i>Rubus fruticosus</i> agg.	Bramble	P	
<i>Rumex acetosella</i>	Sheep's Sorrel	P	
<i>Rumex conglomeratus</i>	Clustered Dock	P	
<i>Rumex obtusifolius</i>	Broad-leaved Dock	P	
<i>Sagina procumbens</i>	Procumbent Pearlwort	P	
<i>Salix alba</i>	White Willow	P	
<i>Salix cinerea</i> subsp. <i>oleifolia</i>	Rusty Willow	P	
<i>Salix euxina</i> x <i>alba</i> = <i>S. x fragilis</i>	Hybrid Crack-willow	P	
<i>Sambucus nigra</i>	Elder	P	
<i>Scorzoneroide autumnalis</i>	Autumn Hawkbit	P	
<i>Senecio jacobaea</i>	Common Ragwort	P	
<i>Senecio sylvaticus</i>	Heath Groundsel	P	
<i>Senecio vulgaris</i>	Groundsel	P	
<i>Silene dioica</i>	Red Campion	P	
<i>Silene latifolia</i>	White Campion	P	
<i>Sisymbrium officinale</i>	Hedge Mustard	P	
<i>Solanum dulcamara</i>	Bittersweet	P	
<i>Solanum nigrum</i>	Black Nightshade	P	
<i>Solidago canadensis</i>	Canadian Goldenrod	P	
<i>Sorbus aucuparia</i>	Rowan	P	
<i>Sparganium erectum</i>	Branched Bur-reed	P	
<i>Spergula arvensis</i>	Corn Spurrey	P	Y
<i>Spergularia rubra</i>	Sand Spurrey	P	
<i>Stellaria graminea</i>	Lesser Stitchwort	P	
<i>Stellaria media</i>	Common Chickweed	P	
# <i>Succisa pratensis</i>	Devil's-bit Scabious	P	Y
<i>Taraxacum officinale</i> agg.	Dandelion	P	
<i>Taxus baccata</i>	Yew	P	
<i>Trifolium dubium</i>	Lesser Trefoil	P	
<i>Trifolium glomeratum</i>	Clustered Clover	P	Y
<i>Trifolium micranthum</i>	Slender Trefoil	P	
<i>Trifolium ornithopodioides</i>	Bird's-foot Clover	P	
<i>Trifolium repens</i>	White Clover	P	
<i>Trifolium striatum</i>	Knotted Clover	P	
<i>Trifolium subterraneum</i>	Subterranean Clover	P	
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	P	
<i>Tussilago farfara</i>	Colt's-foot	P	
<i>Typha latifolia</i>	Bulrush	P	
<i>Ulex europaeus</i>	Gorse	P	
<i>Ulex minor</i>	Dwarf Gorse	P	
<i>Ulmus procera</i>	English Elm	P	
<i>Urtica dioica</i>	Common Nettle	P	
* <i>Vaccinium myrtillus</i>	Bilberry	P	
<i>Vicia sativa</i>	Common Vetch	P	
<i>Vulpia bromoides</i>	Squirreltail Fescue	P	

### Species Summary

<b>Total no. of species :</b>	<b>139</b>
<b>No. of woodland species :</b>	<b>63</b>
<b>* No. of AWVP indicators :</b>	<b>3</b>
<b># No. of acid/neutral grassland indicators :</b>	<b>4</b>

## Notes

### Habitat Classifications :

Priority: Habitats identified as the highest priority for conservation action in the UK

NVC: A system of classifying natural habitat communities according to species associations

Phase 1: A standardised system for surveying, classifying and mapping broad wildlife habitats including urban areas

Peterken: A stand type classification that describes woodlands by tree species

### Indicators Species :

- \* Ancient Woodland Vascular Plants (AWVP) - species most strongly associated with ancient woodland and are typical components of botanically rich ancient woodland communities
- # Acid/neutral grassland indicators - species which seldom occur outside of unimproved acid/neutral grasslands or are indicative of a long period of uninterrupted grassland management
- ~ Chalk grassland indicators - species characteristic of unimproved chalk downland or have a strong affinity to calcareous soil

### Species Abundance:

Frequency: D=dominant A=abundant F=frequent O=occasional R=rare L=locally

Frequencies within brackets ( ) indicate non-native occurrences

### Habitat and Species designations and statuses:

Habitat designations/categories and species legislation/statuses are correct at the time the report was generated and may not necessarily reflect those applicable either at the time of survey or later than the generated date.

## PETERSFIELD HEATH

## BOTANICAL REPORT AND MANAGEMENT RECOMMENDATIONS

Dr. Francis Rose, January 1993

## INTRODUCTION

Petersfield Heath, situated in the south west corner of the Weald, is the most westerly of the formerly extensive heaths of the Folkestone Sand beds. In earlier times, to judge from the First Edition 1 inch Ordnance Survey map, it supported heathland vegetation similar in character to the other Greensand commons, such as Iping/Stedham and Heyshott/Ambersham Commons in West Sussex and the once vast Woolmer Forest in Hampshire. Petersfield Heath was about twice its present size, at the time of the early maps, extending much further to the east.

Large areas of Heather (*Calluna* - *Erica*) heath once existed, with wet heath on the damper slopes and in valleys with a high winter water table. The grazing of livestock, as on all heaths, was once regularly practiced and helped to maintain the biological diversity and prevented the most aggressive and invasive species, such as Birch and Bracken, from smothering everything else (largely by duplicating the actions of the original wild cattle and other herbivores with which our native plants evolved). Grazing, and more recently trampling by people, was also important for maintaining areas of short, species rich acid grassland which occur particularly in the northern part of the site.

Heath Pond is a very old feature and there used to be a marshy valley running from it to the east which contained a meandering stream. In the parts of this valley which were periodically inundated, there once occurred one of Britain's rarest plants, Hampshire Purslane, *Ludwigia pelustris*. This species was first found here by the botanist John Goodyer in 1660, growing in a ditch by the Pond. It was still recorded as abundant in 1848 but, after the deepening and straightening of the stream into a more or less straight ditch, the plant disappeared. It is now only known from three sites in the New Forest, although it has possibly been introduced to Epping Forest.

Apart from the creation of the deep drainage ditch, the botanical interest of Petersfield Heath has also been greatly reduced by the intensive fertiliser application and mowing associated with the golf course, lack of appropriate woodland management and, most recently, by the dumping of nutrient rich silt dredged from the pond onto herb rich grassland. The site retains many valuable features, however, and still supports 144 plant species (not including mosses, lichens or fungi), although many have declined quite markedly.

This report summarises the present vegetation of Petersfield Heath, and is based on the accompanying map prepared by the North East Hampshire Heathlands Project. A number of recommendations for management are also made which, if implemented through a management plan, would help to ensure that the botanical value of the Heath, and hence the wildlife interest, is conserved and improved, whether the golf course moves or not. This will also increase the appearance and recreational value of Petersfield Heath for local people and visitors alike.

## BOTANICAL REPORT

The main areas of botanical interest have been divided into compartments, many of which are further subdivided, indicated on the map. Most of the playing areas of the golf course have been excluded because past management, especially fertiliser application, has produced extensive swards of monotonous, species poor, "improved" grassland. The actual boundaries between the improved grassland and the nutrient poor, natural vegetation have become indistinct in places due to fertiliser run off. Heathland restoration is possible over much of the Heath, although the techniques required to achieve this will vary with the level of nutrients present and further planning will require the results of the planned soil survey.

### Compartment 1

This compartment extends along the southwestern side of Heath Pond, adjacent to Sussex Road. The shoreline is the most valuable feature here, while the woodland is less interesting botanically. Many of the trees have been obviously planted, as on much of the Heath, and Scots Pine, Beech, Birch, Sallow, Sycamore and Yew are present. Holly and Rhododendron occur in places and the ground flora is either improved grassland or is dominated by Bracken and Bramble with very little diversity.

Compartment 1a - along the fringe of the lake in this area is a marshy shore with fen and reedswamp species. In the reedbeds and fen (r) the following species occur:

Gypsy Wort	<u>Lycopus europeus</u>
Woody Nightshade	<u>Solanum dulcamara</u>
Reedmace	<u>Typha latifolia</u>
Common Reed	<u>Phragmites australis</u>
Reed Sweet-grass	<u>Glyceria maxima</u>
Great Hairy Willow-herb	<u>Epilobium hirsutum</u>

On the more open sandy shore (s) plants of interest include:

Bur-marigold	<u>Bidens tripartita</u>
Creeping Yellowcress	<u>Nasturtium sylvestre</u>
Amphibious Bistort	<u>Persicaria amphibia</u>

plus other commoner annual plants of wet, open ground.

Compartment 1b - more open sandy/stoney shoreline occurs here. The flora is similar to that found in Compartment 1a (s) with the addition of Marsh Pennywort, Hydrocotyle vulgaris, now a rather local plant.

Compartment 1c - tall fen vegetation, similar to 1a (r) reappears here, with Reedmace etc present again, with the addition of Fleabane, Pulicaria dysenterica. On the open sandy shore, small rushes such as Juncus bulbosus and J. articulatus are prominent. There are various escaped garden plants in this compartment, including along the Hawthorn hedge boundary.



## Compartment 2

With the exception of the grassy bank below the boundary hedge, which has been enriched with nutrients (probably run off from Heath Road), this compartment supports some very good areas of unimproved, sandy acid grassland. Compartment 2a has been much modified, by heavy recreational use, and 2b has suffered marginally from the activities discussed for compartment 3. Nonetheless, this compartment is one of the richest parts of Petersfield Heath for plant diversity. This is primarily due to the low nutrient levels in the soil and the trampling activities of humans, which have both helped to prevent the establishment of a dense, species poor sward. Extremely heavy trampling has had adverse effects in one or two places but has been beneficial over most of the area for plants like:

Sheep's Sorrel	<u>Rumex acetosella</u>
Common Bent	<u>Agrostis capillaris</u>
Buckshorn Plantain	<u>Plantago coronopus</u> *
various annual clovers	<u>Trifolium species</u>
Heath Spurrey	<u>Spergularia rubra</u> *
<del>Sedg.</del>	<u>Aphaxes microcarpa</u>
Smooth Meadow-grass	<u>Poa pratensis</u>
Hairy Sedge	<u>Carex hirta</u>

and the mosses, Polytrichum juniperum and Ceratodon purpureus.

\* indicates local species, of interest for this area.

An extremely rare clover for Hampshire, Trifolium glomeratum, formerly occurred in Compartment 2 but has not been recorded since 1975.

In places along the edge of Heath Pond, below the playground area in Compartment 2a the sandy shoreline is similar to that in Compartment 1. This has been kept open, to the benefit of many plants, by the trampling actions of humans and waterfowl.

## Compartment 3

The area west of the old tennis courts (now removed) was, botanically, formerly the richest part of Petersfield Heath. When the Pond was cleared of silt, the resulting material was dumped on the environs, including this area. This material has now been removed but, instead of being allowed to recover naturally, has been sown with Rye-grass, which I consider was unnecessary. Prior to this there had been a very rich flora, particularly spring annuals, including several extremely rare species. As well as the species listed for Compartment 2, the following plants also used to occur in this area:

Bulbous Meadow-grass	<u>Poa bulbosa</u> (only on few S. coast sites)
Mossy Tillaea	<u>Crassula tillaea</u> (New Forest & Woolmer only) + Aldershot
Early Hair-grass	<u>Aira praecox</u>
Fine-leaved Heath Fescue	<u>Festuca filiformis</u> ( <u>tenuifolia</u> )
Common Storksbill	<u>Erodium cicutarium</u>
Birdsfoot	<u>Ornithopus perpusillus</u>
plus the annual Clovers	<u>Trifolium ornithopodioides</u> , <u>T. striatum</u> and <u>T. subterraneum</u>

In one or two patches, along the edge and along the main path, narrow strips of the former unimproved sandy grassland still persist. Here, Ornithopus perpusillus and Trifolium subterraneum have survived the silt dumping and sowing of Rye-grass but all the other species listed seem to have disappeared from Compartment 3.

Most, if not all, of these species would probably reappear from the seed bank, however, if the Rye-grass was stripped off or even if the area was lightly rotovated or scarified in early Spring. This could happen naturally, but slowly, as the nutrients are leached from the sandy soil. In any event, it would ultimately involve considerable effort and expense, with regular applications of fertiliser, to maintain a healthy sward of Rye-grass on such a poor soil which is also subjected to regular trampling. The natural turf is much easier and cheaper to manage, more wear resistant and considerably more interesting botanically than Rye-grass anyway.

#### Compartment 4

This is a sandy knoll supporting Birch trees with some Rowan and Oak. Gorse, Ulex europeaus, and several other heathland/acid grassland species can be found here but Bracken is beginning to smother the ground flora. This is an attractive feature, which can be kept more or less as it is, although the bracken will require controlling (see Compartment 9b).

#### Compartment 5

There are again many areas of interesting, species rich, unimproved grassland in Compartment 5, particularly on the slope just below the knoll (Compartment 4), where Fine-leaved Fescue, Birdsfoot and Sheep's Sorrel, among others, can be found. It is important to avoid the use of any fertilisers in this, or any other unimproved area, to maintain the natural sward. Bracken control will be needed adjacent to Compartment 4 to stop this species spreading.

The boundaries between Compartment 5 and the improved parts of the golf course are indistinct, with lateral movements of fertilisers confusing the picture somewhat. The damage to the natural sward caused by fertilisers seems to vary around the site and the soil survey will enable more detailed recommendations on management, and the potential for heathland restoration, to be made.

#### Compartment 6

This area, within the fence, was used as a "bund" for storage of silt removal from the lake for several years. It has been reputedly sown with a "wild flower" seed mixture, but it is (6b) now covered with a dense growth of wayside and arable weeds. The only attractive plant here now is Musk Mallow (Malva moschata) which is here and there. This area needs mowing each year (or more often, if necessary) to try to restore semi-natural grassland. It should be noted that all areas where silt was dumped will have been enriched in nutrients. To restore more natural grassland, or heath, nutrient-stripping may be needed. This will happen naturally over time, slowly, by leaching out of the extra nutrients, but it could be much speeded up by removal of a) mowings, & b) stripping of the

surface soil which is enriched.

At 6a and around 6c, short open turf remains, not enriched by extra nutrients. These areas still have a good flora of sandy type: Storks Bill Erodium cicutarium, Birds foot Ornithopus, Sheep's Sorrel Rumex acetosella, and several clovers Trifolium spp. They are best left alone to restore naturally. Opening them to public walking will help this process. 6c areas are scrub. These could be left for the birds to give some cover.

#### Compartment 7

7a is an area proposed for heath restoration. It is unsuitable for this purpose at present, without stripping the present nutrient enriched plant cover, which contains dense Soft Grass Holcus mollis, False Oat-grass, Arrhenatherum elatius, and Couch, Agropyron repens, etc. Some of the area has patches of the former grass-heath still present. The Gorse areas here should be left to spread.

At 7b there is more acid grassland with the heathland relic rush, Juncus squarrosus, on the bank, plus acid grassland species. This could easily be restored to heathland.

The fairway between 6 - 7 and 5 - 8 is improved grassland which could in part eventually be restored to more natural grassland, or to heath along its east edge adjoining the relict heath area of 8: in 8 there is still locally abundant Calluna with moor-grass Molinia caerulea, and much Festuca tenuifolia - this community would extend W if nutrient levels fell.

8a is the line of the ditch which is the outlet for the Heath Pond. This is too deepened and straightened at present and should be made shallower with some areas into which water can spread and sit during the winter. This is the area presumably where the Hampshire Purslane once grew. There are still a few interesting plants by (Devilsbit Scabious, Succisa pratensis) or in the ditch (Fool's Watercress, Apium nodiflorum, Gipsy wort, Lycopus europaeus, Moor-grass Molinia, and Marsh Pennywort Hydrocotyle vulgaris - even a little Bur-reed Spargonium erectum. The potential here for restoration of a small, shallow but botanically interesting marsh is considerable.

Area 9 contains (in 9b) the best remaining area of heath left on Petersfield Heath. Ling Callum is still dominant over about one acre, together with the following heathland associates:-

Heath Bedstraw	<u>Galium saxatile</u>
Tormentil	<u>Potentilla erecta</u>
Common Beat	<u>Agrostis capillaris</u>
Sheeps sorrel	<u>Rumex acetosella</u>
Moor-Grass	<u>Molinia caerulea</u>
Wild Golden Rod	<u>Solidago virgaurea</u> (rare here now)
Dwarf Gorse	<u>Ulex minor</u> (only one clump left)

This fine heathland relic is getting badly overgrown with Bracken. The Bracken should be sprayed out, and the surrounding Birch scrub removed and pushed back to enlarge the area. 9a is also potential heath with some of the same plant species present, but has been overmown as part of a golf fairway. Mowing should be stopped here and heathland be allowed to form a closed community again.

10a is the strip of Bracken (with Gorse) parallel to Heath Road in the N>E> Bracken control by spraying would improve public access for walkers who do not wish to walk along Heath Road itself, with its fast traffic. At 10b under birch, there is a good patch of Bilberry Vaccinium myrtillus. This would benefit from Bracken spraying.

11 is another strip of unimproved grassland with heather which should be extended on to the present fairway to its south. If fertiliser is no longer applied on to the fairways after the Golf Course leaves the common, then unimproved grassland (and heath) will spread on to them.

12 is the extensive area of North-eastern woodland with open Oak (all much the same age and presumably originally planted late last century) Birch, Bramble and Bracken. This is an attractive feature but in its present state of density, with much Bramble and Bracken, poses a hazard to the public from molesters, muggers etc, and would be better opened out to some extent.

The numerous tumuli on this east part of the common need to be mentioned here. Most of them are tree-covered; the trees look as if they may have been planted. Strictly speaking, trees should not be planted on archaeological evidence, and they should really be carefully removed. This, however, is a complex matter, and consultation with the Ancient Monuments people will be necessary.

13 is a small area of enriched grassland in the NE corner of the common; this is basically an entrance area, best left alone at present.

14 comprises several compartments adjacent to improved fairways and the drainage ditch. 14a is rough but clearly nutrient enriched grassland with Bracken, Common Bent, Agrostis capillaris, Perforate St. John's Wort Hypericum perforatum, etc, of no interest at present. 14b and 14c are similar. The water table is fairly high from its position and this low-lying area, if stripped of its nutrient rich surface layer and litter, could develop into wet-heath of some interest if the area south of it reverted to heath.

15 is an interesting site with a dish barrow, with much Calluna and Molinia. At present it is closely mown, but could if left uncut, form the nucleus of a future heathland area which could be extended on to the adjacent fairway. At 16 there is another (very small) heath patch.

17 comprises areas of Oak-Birch woodland similar in structure and origin to 12. It is probably best to leave most of this except for clearing the tumuli. See 18 at beginning.

## Summary

Petersfield Heath has much changed over time due to a) drainage (including deepening of the Pond run of ditch; b) creation of artificial improved and fertilised swards on the fairways and greens of the golf course; c) development of woodland, probably planted in part, in 12 and 17; d) the bunds created for the silt removed from the pond, now removed.

Artificial fertiliser application has not only resulted in monotonous species - poor swards on the fairways, but lateral run-off has affected other areas of

former acid species-rich grassland and heath, the latter community being now very reduced in extent and threatened by birch invasion and by Brambles and Bracken.

It would be impracticable to try to convert all of the eastern part back to heath, but a much more attractive and interesting mosaic of heath, acid grassland, small wetland areas (in 8 & 14) could be recreated where indicated, particularly if fertiliser applications and intense mowing cease; the fertiliser will leach out on these sandy soils if no more is applied. The sandy turf in 2b in particular was very species rich until c. 1980-81 and measures outlined would help to recreate this. I feel that the woodland blocks at present are a social hazard and there is a case for reducing them and thinning them out.

Petersfield Heath could become a much more interesting and attractive place and much richer in wildlife, if at least some of these (not very complex) recommendations were carried out.



