

WATERLOGGED PLANT REMAINS

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(The cross-references denoted 'CQ' in this paper relate to *Charter Quay, The Spirit of Change*, Wessex Archaeology 2003)

Two samples were selected for the examination of waterlogged plant remains. Subsamples of 1 litre were taken from the bulk samples and processed by wash-over floatation by Wessex Archaeology with flots and residues retained on a 0.25mm mesh. Residues and flots were stored in sealed containers with Industrial Methylated Sprits (IMS). Any coarse (>5.6mm) non-waterlogged fraction was sorted, weighed and discarded. The selected samples were from a 13th/14th century layer on the edge of channel (context 3342), and a late 16th century dump layer (context 3446) Thames-side of the revetment behind the Saracen's Head inn.

13th/14th century, layer 3342

The sample from this layer was very rich and the plant remains were very well preserved allowing in most cases identification down to species. The macrofossils were preserved by charring and by waterlogging. The majority of the remains were preserved by the latter method, see Table WP1, although the charred material dominated the samples, see Table WP2, especially those of the heathers.

The charred material is more likely to reflect the activities taking place within the property (Hinton) whilst the waterlogged material represents the vegetation growing outside the property.

From Table WP3, it can be seen that a variety of habitats are represented. The wetland species would be expected given the location of the site and are still commonly found next to rivers and other damp places today. The arable/disturbed/waste ground element of the assemblage could have originated from two separate sources, one being the remains of crop processing and the other being, as mentioned above, the flora growing around the property. Since the majority of these remains were preserved by waterlogging and not charred I would suggest that this element reflects the latter scenario.

The woodland/scrub/hedgebank species recovered from the samples again may indicate the local flora, suggesting that the edge of the river was in fact, a scrubby, disturbed area with a bankside flora more towards the river. Although the presence of black currant, bramble and strawberry may suggest the remains of food. This source maybe disregarded due to the fact that these seeds are small enough to be consumed and therefore would only appear if the sample represented cess, but there is no sign of mineralisation. It was noticed that some of the wood fragments within the sample did show evidence of the blue mineral vivianite which suggests that some toilet activity did take place, although this is difficult to confirm.

What is of interest however is the presence of the heathland species, such as heather, cross-leaved heath, bell heather and bracken. The sample was dominated by these remains, which in the majority of cases were preserved by charring, (the bracken was preserved by waterlogging). This shows that environments outside the settlement were being exploited to

some extent and it is most likely that these materials were transported to the site for a specific purpose, such as flooring or bedding. Whether this was for human use or for animals is difficult to determine, but analysis of the insect remains might be able to shed some light on this matter. Another possibility is that the charred heathers may represent the remains of a roof. I suspect that these remains represent some sort of flooring which was burnt after use. The other interesting fact about these remains is that apart from the leaves, fruits of the three species were also present, especially *Calluna vulgaris* along with the seeds of *Erica cinerea*. As the majority of the fruits still contained seeds it is possible to determine the time of year that the heathers were collected. All three species flower between June/July to September, which suggests that they were cut and collected towards the end of this period, or even October, and were soon discarded. Therefore, there must have been a continuous harvest of heathers for flooring which may infer that the heathland may well have been managed. The precise location of the moorlands is uncertain, but it likely that they were located on the Bagshots Sands. The presence of the three species also indicates that they were exploiting different parts of the heaths, as both heather and cross-leaved heath prefer wet heaths whilst bell heather drier parts of heaths.

The cultivated species present within the assemblage were barley oats and rye, all represented by charred grain except the rye, which was identified by the presence of a rachis fragment. As they were charred it is suggested that they were part of some domestic activity. The presence of rapeseed/swede is of more interest, as this is thought to be a more recent introduction. According to Thirsk (1997), experiments growing this crop were carried out in the mid-thirteenth century and it might have served as an alternative crop in the first phase of alternative agriculture after the Black Death (1348-9). Although according to Thirsk, it may not have been a crop for very long as it's cultivation is very labour intensive.

In conclusion, it can be seen that the majority of the remains represent bedding or flooring material, whether this was for human or animal use is difficult to determine. Evidence of crops are also present within the sample, as is the presence of the local vegetation, which can be described as being a tangle of scrub with open disturbed areas backing onto a more wetland area closer to the river.

I hope that this is enough information for now. I will expand the discussions with the final report, and compare with the later date samples. I think that this sample has showed that several different habitats were exploited, some not that local and there may even be some tentative evidence for an alternative agriculture which was initiated after the Black Death.

Late 16th century, context 3446

Context 3446 has been interpreted as a dump of household refuse on the Thames side of the revetments, and appeared to be a fairly discrete deposit/concentration, with oyster shell, animal bones and some pottery sherds. In general appearance the sample consisted of matted plant material which appeared to be straw-like in character (see *CQ* p. 43).

The sample was dominated by the remains of monocotyledonous stems and roots. A large quantity of waterlogged wood fragments were present, some of which showed signs of being worked. Fragments of coal were also noticed in the sample. The majority of the plant remains were preserved by waterlogging, although some charred material was present, mainly in the

form of charcoal. Only charcoal above or equal to 2mm in any dimension was recorded. Apart from plant remains, faunal remains were also noted, these included; fish bone and scales including the vertebrae of several bony fishes were present several of which were identified as eel. Bird bones were also present in the form of the metatarsus of a small bird and the vertebrae of either duck or chicken. In the case of the latter it appears that one of the vertebra has been split through the middle, indicating butchery. Bird eggshell was also present. An unerrupted molar of pig was identified, suggesting the remains of a very young individual. The dorsal denticle of a cartilagenous fish, most likely to be either shark or ray was also recovered.

The state of preservation of the plant and animal remains was very good. A total of 92 plant taxa were recovered from this sample and the results can be seen in Table WP4. Plant taxa representative of a number of habitats including exotic and crop plants were identified from this sample and are discussed in some detail below and can be seen in Table WP5.

The nomenclature of the non-cereal taxa follows that of Stace (1997).

Food/Exotic plants

A total of 16 taxa of food/exotic plants were recovered. These included larkspur (*Consolida regalis/ajacis*), fig (*Ficus carica*), walnut (*Juglans* sp.), cabbages (*Brassica* sp.), bullace/damson (*Prunus domestica* ssp. *institia*), apple (*Malus* sp.), grape (*Vitis vinifera*), celery (*Apium graveolens*), garden parsley (*Petroselinium crispum*), parsnip (*Pastinaca sativa*), feverfew (*Tanacetum parthenium*), onion/garlic/leek (*Allium* sp.), macaroni/riwet wheat (*Triticum durum/turgidum*), rye (*Secale cereale*) and indeterminate cereal remains and cereal culm nodes.

The cereals are represented by the presence of rachis fragments of the tetraploid free-threshing macaroni/riwet wheat and rye. In the case of wheat, the most likely species is to be that of riwet as the conditions in Britain do not allow for the successful growing of macaroni wheat (too cold and wet), (Greig 1991) and rye was a common cereal of this time. In both cases the remains were preserved by waterlogging (as in the majority of cases in this sample), which suggests that although the remains may represent the products of crop processing, their use was not that of tinder but may have had some other use, such as part of flooring material. The cereal culm nodes may also indicate flooring being the remains of straw. The only charred material present was that of indeterminate cereal grains which may reflect a background flora.

Other food items present which could have been grown in Britain include cabbages (*Brassica* spp.); these are fairly common in organic material of this date (Greig 1991). Identification to species was not possible in this sample (apart from the presence of a well-preserved specimen of black mustard, *Brassica nigra*). *Brassica* seeds can be used for a variety of purposes including vegetables such as cabbages or turnips or as oilseeds and mustard or even as weeds as is suggested for the presence of the black mustard (Greig 1991). Other possible representatives of vegetables include parsnip, which may be a wild species, celery, (although the presence of seed suggests that it may have been used as a spice), onion/garlic/leek is also a possible vegetable. The presence of herbs may be indicated by the mericarp of parsley.

Fruits and nuts are well represented in this sample, including the remains of the fruitstones of bullace/damson, the endocarp of apple (the remains of the core), hazel (*Corylus avellana*). Hazel is a native species it is difficult to say whether it was deliberately grown or the remains represent the gathering of nuts from the wild. In either case it can be considered as a foodstuff, although it may also indicate the presence of woodland or scrub in the environs of the town. Other wild foodstuffs present include strawberry (*Fragaria vesca*) and bramble (*Rubus* Section 2 Glandulosus), which again may have been collected from the wild, from similar habitats to those of hazel.

There are three other species which can be considered to be of a more exotic origin, these are fig, walnut and grape. According to Greig (1991) the finds of fig and grape are often numerous. The most likely species of walnut present in this sample is *Juglans regia* as the first reference to black walnut (*Juglans nigra*), an American species, is by Parkinson in 1629. *Juglans regia*, can be found growing wild in S.E. Europe, the Middle East, especially Persia (Iran), and the forests of Turkestan, Caucasus and Afghanistan. It is often referred to as the "Persian nut" (Roach 1985).

The history of the walnut in the British Isles is at best vague. Pollen of *Juglans regia* has been identified from several sites suggesting an introduction in late Post-Glacial times, (Godwin 1984), although there is no evidence for nut remains until the Roman occupation. Walnuts were included in the diet of Roman troops in various parts of Europe, such as Vindonissa and Saalbuy (Roach 1985). Remains of walnuts have been found in Roman London at New Fresh Wharf and it has been suggested that they had been grown in Britain, although Roach states there is no proof of this and that they were probably imported.

The general view according to Roach (1985), is that the walnut was introduced to Britain during the 15th or 16th centuries, although the documentary evidence suggests that walnuts were grown here before then and the nuts were in common use several centuries earlier. An 11th century Anglo-Saxon glossary includes the name of walnut, "walsh nutte", in various forms, meaning the nut from foreign lands, usually Roman lands, Gaul and Italy. Accounts for the Holborn gardens of the Earl of Lincoln in 1295-6 include an entry for £9 for pears, apples and 'great nuts' (walnuts) sold from the garden. The Durham Account Rolls for 1358-9 include 'walnottes' and those for 1365-9 include an item for '2000 de walsnotes in precio 2s 6d'. Chaucer also mentions walnuts (Roach 1985). There are other records of walnuts having been grown in the Middle Ages, including various culinary uses in making fruit pies and sweet and sour meat dishes, some of which are described in Two Cookery Books of 1430, (Roach 1985).

The later sources such as the Holinshed Chronicles of 1580 included walnuts among the new varieties of fruits imported within the previous 40 years, in comparison with which the old trees were worthless, therefore walnuts grown in Britain for several centuries but better walnuts were imported together with other new fruits during the reign of Henry VIII (Roach 1985).

The first references to walnuts in the early printed herbals in the 17th century show that the authors were familiar with them and did not regard the nuts as a recently introduced species.

Apart from the nut being edible there are other uses of walnut include walnut oil valued both for cooking and cosmetics and the shells provide a black hair dye. Although the most likely use of walnuts in this sample is as a food source. It is difficult to determine whether the nuts were of local or imported stock.

Fig has had a long history in Britain, it was an important part of the Roman diet. Dried figs were carried by travellers and included in the rations of the Roman military (Roach 1985). Fig seeds have been found at many Roman sites both in London and the provenances (Greig 1991). Figs rely on wasp to pollinate the flowers contained within the fruit (known as a sygonium) which was unknown in Britain in the past and thus the seeds produced by figs grown in Britain were poorly formed. The seeds recovered from this site are fully formed and, therefore, probably represent imported fruits.

George Bunyard (1881; 1890) suggested that the fig variety known as Reculver was named after the important Roman port in Kent and therefore figs have been planted in Britain since then. Even if this was the case, the fig had disappeared by the Dark Ages (Roach 1985). In Europe, figs were included in Charlemagne's list of fruits compiled in AD 800, but the first evidence for cultivation of fig in Britain is in the 16th century (Roach 1985).

Tradition has it that the first fig tree grown in Britain was introduced by Pole, later to become Cardinal, and planted in the gardens of Lambeth Palace in 1525. According to Miller (1731), the fig trees were still growing two centuries later and were of the White Marseilles variety, which is often considered to be the most delicious fig in cultivation. This origin is disputed by Roach (1985) who suggests that many 16th century authors wrote of figs as if they were a common fruit e.g. Turner (1568).

Even though the figs seeds from Charter Quay may be of a 16th century date and may well have coincided with the introduction of fig growing in Britain it can be assumed that these seeds represent imported fruit.

The finds of grape pips suggests that the fruit was eaten at the site and not used for the production of wine. It is not possible to determine whether the grapes were eaten as fresh fruit or as raisins. The Holinshed Chronicle of 1580 mentions that vineyards had almost disappeared from Britain by that time, suggesting that the fruit consumed at Charter Quay was imported and therefore most likely to have been dried.

Hazel nuts according to Roach (1985) were harvested by country people and then taken to local markets and large quantities were taken up to London. It is not possible to say when improved cultivated forms were introduced due to the frequency with which wild nuts are found on archaeological excavations (Greig 1991). The earliest reference to the filbert (*Corylus maxima*) is in the Grete Herball (Treueris 1526) and Turner's list of 1548. Therefore it appears that the improved varieties and the cultivation of the filbert occurred at a later date than the deposit at Charter Quay (Roach 1985). Most of the nut fragments were small in size (less than 10mm in any dimension), although some fragments were over 10mm and seven half hazel nuts were recovered, each being split lengthways.

Six seeds of feverfew or batchelor's buttons were recovered from this sample. According to Mabey (1996), it reached Britain from its' home in the Balkans during the early Middle Ages,

and today it can be found growing in almost any situation. As the name suggests, this plant has been used in the treatment of many different kinds of ailments including colds and fevers (see *CQ* p. 44). In the Classical and medieval world it was the equivalent of today's aspirin (Mabey 1996). It was recommended for headaches, rheumatism and general aches and pains and today it is used as an alternative treatment for migraine.

All parts of the plant are used in the various treatments, although that for migraine and perhaps therefore for headaches the leaves are used, either eaten raw or in sandwiches. The seeds found at Charter Quay probably represent a plant growing in the back garden of the Inn, and given its' restorative properties it may have been used to help alleviate over-indulgences of customers!

Another interesting find is that of a single seed of larkspur, it is difficult to decide whether it is the forking larkspur (*Consolida regalis*) or larkspur (*Consolida ajacis*), if it is the latter species it may well have been growing in the garden of the pub as it often grown in modern gardens. Very little is known about the history of this plant. In some places it has now escaped from gardens and is now naturalised especially in East Anglia (Stace 1997).

Overall, the food plants are those that can be expected to be found in samples of this date, especially the rivet wheat and the rye. What makes this sample interesting is the presence of exotics such as walnut and larkspur. The presence of food items within this sample can be considered unsurprising given the context of this sample as a discrete dump at the rear of an inn.

Apart from the food plants, other plant taxa were present which represent different habitats, and these will be discussed below.

Arable/disturbed/waste ground

This habitat represents the largest number of species recovered. A total of 29 of the identified taxa can be found growing in this type of habitat. Many of the species listed under this category in Table WP5 can be found in a variety of habitats although several of the species represent more specific habitats such as Thyme-leaved sandwort (*Arenaria serpyllifolia* ssp. *leptoclados*) which can be found on well-drained soils as can white campion (*Silene* cf. *latifolia*) which is found on light soils in the open. Stinking Chamomile (*Anthemis cotula*) on the other hand is indicative of heavier, less well-drained soils. Other species can have a more maritime distribution including nettle-leaved goosefoot (*Chenopodium murale*), black mustard and knotted hedge-parsley (*Torilis nodosa*). It is tempting to suggest that these taxa are indicative of arable cultivation, with agriculture occurring in a range of conditions, including light soils, heavier ones and those of a more maritime nature. But because the seeds are not charred it may be possible that the taxa do not represent crop processing waste. It is more likely that these species were probably growing in waste ground, such as that which may be present around the property, possibly the area at the back of the inn and close to the revetments. It is also possible that the species were gathered especially to be used as part of the fragrant flooring material of the inn (see *CQ* p. 44).

Grasslands

This category included 15 taxa. In general the species present are indicative of rough grassland, although species such as daisy (*Bellis perennis*) and yarrow (*Achillea millefolium*) prefer shorter grassland whilst cowslip (*Primula cf. veris*), is indicative of light base-rich soils as are vervain (*Verbena officinalis*) and rough hawkbit (*Leontodon hispidus*). Oxeye daisy (*Leucanthemum vulgare*) is usually found on rich soils. It is most likely that the species that are found within this category represent the remains of hay, which may have been strewn on the inn floor.

Heaths and bogs

Four species are indicative of this habitat. These are bracken (*Pteridium aquilinum*), sheep's sorrel (*Rumex acetosella*), cross-leaved heath (*Erica tetralix*), represented by both leaves and seeds, and heath grass (*Danthonia decumbens*). Sheep's sorrel can also be found in short grassland on acid soils. Cross-leaved heath is usually found on wetter areas than any of the other species and therefore these species may represent a mosaic of heathlands, which is most likely growing on the local Bagshot gravels. It is possible that these remains represent once again the remains of flooring material used in the inn.

Aquatic

The aquatic element of the sample is represented by four species, fringed waterlily (*Nymphoides peltata*), water-plantain (*Alisma plantago-aquatica*), horned pondweed (*Zannichellia palustris*) and branched bur-reed (*Sparganium erectum*). These species most likely represent the river environment behind the inn (see CQ p. 48).

Fringed waterlily is thought to be native in the Thames valley, where it was recorded as frequent in the River Thames about London in 1570 (Kent 1975; Preston and Croft 1997). It is also thought to be native in East Anglia, where Ray (1660) found it 'in many rivers about the fens in great plenty'. It is a plant of lowland, calcareous and eutrophic water over inorganic substrates at the edges of lakes, slowly flowing rivers and fenland lodes (Preston and Croft 1997).

Water-plantain is found in shallow water or exposed mud at the edges of a wide range of water bodies (Preston and Croft 1997). It usually grows in open habitats, including shallow water where cattle congregate. It is found in both mesotrophic and eutrophic water and usually grows on fine-grained, nutrient rich substrates, such as that can be expected to be found on the Thames at Kingston, where the river is still tidal, providing ideal growing conditions.

Horned pondweed grows in a wide range of habitats where the water is shallow and calcareous, eutrophic or brackish. It can be found as large patches in clear streams which are highly calcareous but not necessarily nutrient-rich (Preston and Croft 1997). The fruits are often eaten by ducks (Martin *et al.* 1961) and can persist where there are large numbers of waterfowl. It is often found in water less than 0.5m deep. Again the conditions of the Thames at Kingston are suitable for its growth.

Branched bur-reed is a short emergent and is usually found in narrow bands in permanent water. It grows by still or slowly flowing water but is easily uprooted and is therefore absent from the edge of rapid waters and exposed shores (Preston and Croft 1997). It is most vigorous in water 100-200mm deep, and cannot stand prolonged immersion. It is found over a range of fine, and often anaerobic, mineral substrates (such as those found at the edge of the Thames), in both mesotrophic and eutrophic habitats and is very tolerant of eutrophication.

The aquatic plant species recovered, give some indication to the nature of the River Thames at Kingston, where it can be deduced that the river is slow moving, possibly brackish and is meso - eutrophic in its nutrient status. This eutrophication is probably due to the dumping of household waste and sewerage into the river.

Wetlands

A total of 12 plant taxa were recovered which are indicative of various kinds of wetlands. Due to the proximity of the deposit to the river it is not surprising that some of the plant remains would be from this type of habitat. Many of them would be found growing at the river's edge or where the watertable is high. The plants found include marsh-marigold (*Caltha palustris*), Lesser spearwort (*Ranunculus flammula*), blinks (*Montia fontana* ssp. *chondrosperma*), which can be found growing in the bare muddy patches that may appear on the banks of the river. Bog stitchwort (*Stellaria uliginosa*), which is often found on acid soils, ragged-robin (*Lychnis flos-cuculi*) and meadowsweet (*Filipendula ulmaria*) were also found along with hemlock (*Conium maculatum*), bittersweet (*Solanum dulcamara*), rushes (*Juncus* spp.), common spike-rush (*Eleocharis palustris*), wood club-rush (*Scirpus sylvaticus*) and sedges (*Carex* sp.) were found. Although it is possible that these species are representative of the environment along the banks of the Thames, another possible source is that of a wet hay meadow which may have been cut and used as a floor covering. The presence of meadowsweet, which is sweet scented may have been used to cover any odours emanating from the activities of the inn. Meadowsweet is also a source of salicylic acid which is a precursor of aspirin and again may represent another remedy for over-indulgence, although this is unlikely.

Woods/scrub/hedgebanks

Nine taxa which are indicators of shady places associated with wood, scrub and hedgebanks were recovered from the sample. Already mentioned, the hazel nutshell was probably gathered from further afield and sold at market and then consumed in the inn as a snack (possibly the original beer nut!). The finds of strawberry achenes are also most likely to represent gathered wild food. Indicators of shady places include greater chickweed (*Stellaria neglecta*), hedge woundwort (*Stachys sylvatica*) were also present and along with the finds of elder (*Sambucus nigra*) seeds they probably represent the overgrown conditions of the back garden of the inn. Sweet violet (*Viola odorata*) may also have grown there, but due to its perfume it may have been used in a similar way to meadowsweet in order to mask any unpleasant smells within the inn, and according to Mabey (1996) was used as a strewing herb. In herbal medicine sweet violet has been used for the treatment of headaches, although this use cannot be verified by the plant remains. The remains of rose (*Rosa* sp.) may also have grown in the back garden. The majority of the buds recovered from the sample were of ash (*Fraxinus excelsior*), which may have been growing in the vicinity.

Various habitats

These are taxa for which it is not possible to determine any definite habitat preference, although the presence of bramble (*Rubus* section 2 *Glandulosus*) may represent the remains of more gathered food from the wild. The cinquefoils (*Potentilla* sp.) may be part of the garden flora or as part of the hay which was used as flooring, the same could be said of the corn/watermint (*Mentha* sp.). Teasel (*Dipsacus fullonum*) is often found in damp habitats and may have been part of the riverbank flora.

Discussion and conclusions

Context 3446 has been interpreted as a dump of household refuse beyond the revetments. The results of the analysis of the plant remains contained within the sample have indicated that this is the most likely interpretation. There are several aspects contained within the sample. One noticeable feature of the context is the presence of many food items, such as apples, damson/bullace, hazelnuts, walnuts, figs and grapes, the final three can be expected to be imports as explained above. Other possible food sources include the presence of strawberry and bramble achenes. Remains of rivet wheat (a free-threshing tetraploid) and rye are also present. The presence of celery and parsley fruits suggests that herbs and spices were in use.

The largest number of taxa recovered belong to the arable/disturbed/waste ground category. In most cases these taxa would have been interpreted as the remains of crop-processing waste, but as this sample is from a building within a town it is deemed unlikely and that the majority of the remains in this category could have been growing in the vicinity of the building. Another possibility is that they may have been part of a hay crop, along with those taxa which represent grasslands which may have then been strewn on the floor of the inn. The presence of meadowsweet and sweet violet suggests that strewing herbs were used in order to mask any unpleasant smells. The presence of species representing different soil types suggests that different areas around the town were exploited.

The presence of feverfew in the sample may suggest some medicinal use although this is difficult to prove. It is most likely, given the modern-day habit of this species, that it was most likely growing in the back garden of the property, as was perhaps the larkspur and the sweet violet. The presence of shade loving plants also suggests the possibility that the garden backing onto the revetments was overgrown.

The presence of wetland species in the sample can be interpreted as representing the riverbank flora or even the possibility of hay from a wet meadow which was used along with the grassland species as a floor covering. There were also taxa which represented heaths and bogs, suggesting that they were also utilised for floor coverings. The presence of indicators of wet bogs and drier heaths suggests that there was a mosaic of heathlands present on the Bagshot gravels.

The aquatic species present within the sample provides the opportunity to discover the condition of the river at this time. The presence of the fringed waterlily is interesting as it is only native in the Thames valley and East Anglia. Also present were water-plantain, horned pondweed and branched bur-reed. All these species suggest that the river was slow moving, possibly brackish and meso-eutrophic in terms of nutrient status. All these species are capable

of withstanding some degree of eutrophication, which may be on the increase due to the direct dumping of household waste (as in the case of this sample) and raw sewerage.

Apart from the plant remains it was noticeable that other food items were also present. These included the remains of fish bones and scales, including the vertebrae of eel, the dorsal denticle of either a shark or ray and the vertebrae of either duck or chicken. Bird eggshell was also present. This suggests that the clientele of this establishment enjoyed a variety of foods.

In conclusion, it can be said that the sample represents the remains of flooring material, which was mixed with food debris. The presence of aquatic plants has made it possible to determine the state of the river. The presence of a large number of taxa from different habitats has shown that a variety of environments were exploited around the town of Kingston-upon-Thames.

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WATERLOGGED PLANT REMAINS TABLES

Table WP1: The late 13th/early 14th century waterlogged plant taxa from context 3342

Context	3342		
Sample	9044		
Date	Late 13C/Early 14C		
Common Name	Species	Score	Habitat
Bracken	<i>Pteridium aquilinum</i> pinnules	3	Woods, heaths and moors, usually on acid dry soils, rarely on calcareous ones
Hairy Buttercup	<i>Ranunculus sardous</i>	2	Grassland and cultivated land, frequent near S & E coasts of England
Lesser Spearwort	<i>Ranunculus flammula</i>	1	All kinds of wet places
Buttercups	<i>Ranunculus</i> subgenus <i>Ranunculus</i>	1+4f	Grasslands, cultivated and waste ground
Long-headed Poppy	<i>Papaver dubium</i> ssp. <i>lecoqii</i>	3	Arable ground, roadsides and waste places
Stinging Nettle	<i>Urtica dioica</i>	24	Many habitats, especially woodland, fens, cultivated ground and where animals defecate
Fat-hen	<i>Chenopodium album</i>	33+62f	Waste and cultivated ground
Orache	<i>Atriplex</i> sp.	1+1f	Disturbed and waste ground of all types
Blinks	<i>Montia fontana</i>	1f	Many kinds of damp places
Chickweed	<i>Stellaria media</i>	4	Ubiquitous weed of cultivated and open ground
Corncockle	<i>Agrostemma githago</i>	8f	Cultivated and waste ground
Pink Family	Caryophyllaceae indet	5	
Black Bindweed	<i>Fallopia convolvulus</i>	5f	Waste and arable land
Sheep's Sorrel	<i>Rumex acetosella</i>	1+4f	Heathy open ground, short grassland and cultivated land, mostly on acid sandy soils
Rapeseed/Swede	<i>Brassica cf napus</i>	1+22f	Cultivated
Charlock	<i>Sinapsis arvensis</i> capsule frag	1	Arable and waste land, tips and roadsides
Heather	<i>Calluna vulgaris</i> fruits	10	Bogs and usually wet heaths and moors
Heather	<i>Calluna vulgaris</i> buds/immature fruits	1	
Bell Heather	<i>Erica cinerea</i> seeds	38	Dry heaths and moors
Blue Pimpernel	<i>Anagallis arvensis</i> ssp. <i>foemina</i>	1	Arable land, mostly in C & S England
Black Currant	<i>Ribes nigrum</i>	1	Woods, hedges and shady streamsides. Probably introduced
Bramble	<i>Rubus</i> section 2 Glandulosus	2	Various woodland/scrub habitats
Cinquefoils	<i>Potentilla</i> sp.	3+1f	Various habitats
Wild Strawberry	<i>Fragaria vesca</i>	11+2f	Woods, scrub and hedgerows
Wild Rose	<i>Rosa</i> sp. prickles	1	Scrub, hedgebanks
Rose Family	Rosaceae indet	1	
Clovers etc	Petals - Fabaceae cf Trifolieae type	2	
Marsh Pennywort	<i>Hydrocotyle vulgaris</i>	1	Bogs, fens, marshes and the sides of lakes

Fine-leaved Water-dropwort	<i>Oenanthe aquatica</i>	3f	Ditches & ponds often drying up in summer
Hemlock	<i>Conium maculatum</i>	1	Damp ground, roadsides, ditches, waste ground
Henbane	<i>Hyosyamus niger</i>	4	Maritime sand and shingle, inland rough and waste ground, especially manured by rabbits or cattle
Black Nightshade	<i>Solanum nigrum</i>	3	Waste and cultivated ground
Thistles	<i>Cirsium</i> sp. fragments	4	Various habitats
Cornflower	<i>Centaurea cyanus</i>	2	Cornfields
Common Spike-rush	<i>Eleocharis palustris</i>	3	By ponds, marshes, ditches, riversides
Sedges	<i>Carex</i> sp. (lenticular)	2	Various wet and damp habitats
Sedges	<i>Carex</i> sp. (trigonus)	7	Various wet and damp habitats
Grasses	Small Poaceae indet.	2	
	Buds	25	
	Bud scales	2	
	Fish Scale	24f	
	Fish Bone	7	
	Non-fish bone	1f	
	Insect remains	(5)	
	Worm cocoons	(3)	
	Shell	1f	

Table WP2: The charred plant taxa from the late 13th/early 14th century context 3342.

Context	3342		
Sample	9044		
Date	Late 13C/Early 14C		
Common Name	Species	Score	Habitat
Fat-hen	<i>Chenopodium album</i>	2	Waste and cultivated ground
Docks	<i>Rumex</i> sp.	1	Most habitat types
Heather	<i>Calluna vulgaris</i> leaves	(5)	Heaths, moors, rocky places, bogs and open woodland, mainly on sandy and peaty soil
Heather	<i>Calluna vulgaris</i> fruits	(5)	
Heather	<i>Calluna vulgaris</i> buds/immature fruits	56	
Cross-leaved Heath	<i>Erica tetralix</i> leaves	160	Bogs and usually wet heaths and moors
Cross-leaved Heath	<i>Erica tetralix</i> fruit fragments	3	
Bell Heather	<i>Erica cinerea</i> leaves	54	Dry heaths and moors
Bell Heather	<i>Erica cinerea</i> seeds	18	
Bell Heather	<i>Erica cinerea</i> fruits	1+5f	
Hawthorn/Blackthorn	<i>Crataegus/Prunus</i> thorns	6	Scrub, hedgebanks
Sun Spurge	<i>Euphorbia helioscopia</i>	1f	Cultivated ground and waste places
Cornflower	<i>Centaurea cyanus</i>	2+1	Cornfields
Soft-rush	<i>Juncus effusus</i> fruits	1+2f	Marshes, ditches, bogs, wet meadows, by rivers and lakes, damp woods, mostly on acid soils
Reed Sweet-grass	<i>Glyceria maxima</i>	2	In and by rivers, canals, ponds and lakes, usually in deep water
Grasses	Small Poaceae indet.	1	
Oats	<i>Avena cf sativa</i>	4	Cultivated
Barley	<i>Hordeum vulgare</i>	2+3f	Cultivated
Brome-grass	<i>Bromus</i> sp.	1f	Arable and grasslands, also woodlands and hedgerows
Rye	<i>Secale cereale</i> rachis fragments	1	Cultivated
	Cerealia indet palea/lemma	1	
	Cerealia indet; sprout	1	
	Cerealia indet.	5f	
	Culm node	2	
	Leaf fragments	2	
	Miscellaneous	3	

Table WP3: Plant taxa from context 3342, listed by habitat preferences

Cultivated	
Rapeseed/Swede	<i>Brassica cf napus</i>
Oats	<i>Avena cf sativa</i>
Barley	<i>Hordeum vulgare</i>
Rye	<i>Secale cereale</i>
Arable/Disturbed/Waste	
Hairy Buttercup	<i>Ranunculus sardous</i>
Long-headed Poppy	<i>Papaver dubium ssp. lecoqii</i>
Stinging Nettle	<i>Urtica dioica</i>
Fat-hen	<i>Chenopodium album</i>
Orache	<i>Atriplex sp.</i>
Chickweed	<i>Stellaria media</i>
Corncockle	<i>Agrostemma githago</i>
Black Bindweed	<i>Fallopia convolvulus</i>
Docks	<i>Rumex sp.</i>
Charlock	<i>Sinapsis arvensis</i>
Blue Pimpernel	<i>Anagallis arvensis ssp. foemina</i>
Sun Spurge	<i>Euphorbia helioscopa</i>
Henbane	<i>Hyosyamus niger</i>
Black Nightshade	<i>Solanum nigrum</i>
Cornflower	<i>Centaurea cyanus</i>
Brome-grass	<i>Bromus sp.</i>
Heaths and Bogs	
Bracken	<i>Pteridium aquilinum</i>
Sheep's Sorrel	<i>Rumex acetosella</i>
Heather	<i>Calluna vulgaris</i>
Cross-leaved Heath	<i>Erica tetralix</i>
Bell Heather	<i>Erica cinerea</i>
Wetland	
Blinks	<i>Montia fontana</i>
Marsh Pennywort	<i>Hydrocotyle vulgaris</i>
Fine-leaved Water-dropwort	<i>Oenanthe aquatica</i>
Hemlock	<i>Conium maculatum</i>
Soft-rush	<i>Juncus effusus</i>
Common Spike-rush	<i>Eleocharis palustris</i>
Sedges	<i>Carex sp.</i>
Reed Sweet-grass	<i>Glyceria maxima</i>
Woodland/Scrub/Hedgebank	
Black Currant	<i>Ribes nigrum</i>
Bramble	<i>Rubus section 2 Glandulosus (R. fruticosus</i>
Wild Strawberry	<i>Fragaria vesca</i>
Wild Rose	<i>Rosa sp.</i>
Various Habitats	
Cinquefoils	<i>Potentilla sp.</i>
Thistles	<i>Cirsium sp.</i>

Table WP4: The late 15th/early 16th century plant taxa from context 3446

Context	3446		
Sample no.	9048		
Date	Late C15/C16		
Common Name	Species	Score	Habitat
Bracken	<i>Pteridium aquilinum</i> pinnules	2	Woods, heaths and moors, usually on acid dry soils, rarely on calcareous ones
Larkspur	<i>Consolida regalis/ajacis</i>	1	Introduced, much grown in gardens and a common escape, formerly a cornfield weed naturalised in E. Anglia
Marsh-marigold	<i>Caltha palustris</i>	2	Marshes, ditches and besides ponds and streams
Lesser Spearwort	<i>Ranunculus flammula</i>	7+1f	All kinds of wet places
Buttercups	<i>Ranunculus</i> subgenus <i>Ranunculus</i>	51+76f	Grasslands, cultivated and waste places
Poppy	<i>Papaver</i> sp.	5	Cultivated and waste places
Fig	<i>Ficus carica</i>	65	Cultivated fruit, but when escapes on waste ground and walls, especially by rivers; naturalised in S. Britain
Stinging Nettle	<i>Urtica dioica</i>	21+1f	Many habitats, especially woodland, fens, cultivated ground and where animals defecate
Small Nettle	<i>Urtica urens</i>	2+2f	Cultivated and waste ground
Walnut	<i>Juglans</i> sp. nutshell < 10mm		Cultivated nut, commonly planted
Hazel	<i>Corylus avellana</i> nutshell halves		Hedgerows, scrub and woodland
	<i>Corylus avellana</i> fragments > 10mm		
	<i>Corylus avellana</i> fragments < 10mm		
Nettle-leaved Goosefoot	<i>Chenopodium murale</i>	5	Waste and cultivated ground, probably native near sea in southern England
Fat-hen	<i>Chenopodium album</i>	17+7f	Waste and cultivated ground
	Chenopodiaceae indet	1	
Blinks	<i>Montia fontana</i> ssp. <i>chondrosperma</i>	1	Many kinds of damp places, from streams to seasonally damp hollows
Thyme-leaved sandwort	<i>Arenaria serphyllifolia</i> ssp. <i>leptoclados</i>	1	Open ground on well-drained soils, especially sand and limestone
Common Chickweed	<i>Stellaria media</i>	8+2f	Ubiquitous weed of cultivated and open ground
Greater Chickweed	<i>Stellaria neglecta</i>	7	Shady usually damp places
Lesser Stitchwort	<i>Stellaria graminea</i>	7+1f	Grassy, often dry places
Bog Stitchwort	<i>Stellaria uliginosa</i>	4	Streamsides, ditches, wet tracks, depressions, often on acidic soils
Ragged-Robin	<i>Lychnis flos-cuculi</i>	9	Marshy fields and other damp places
Corncockle	<i>Agrostemma githago</i>	18f	Cultivated and waste ground
White Champion	<i>Silene</i> cf <i>latifolia</i>	5+5f	Banks, roadsides, waste and cultivated ground, mostly on light soils in the open
Redshank	<i>Persicaria maculosa</i>	1	Waste, cultivated and open ground

Pale Persicaria	<i>Persicaria lapathifolia</i>	2	Waste, cultivated and open ground, especially damp ground
Knotgrass	<i>Polygonum aviculare</i>	16+4f	All sorts of open ground
Sheep's Sorrel	<i>Rumex acetosella</i>	18	Heathy open ground, short grassland and cultivated land , mostly on acid sandy soils
Curled Dock	<i>Rumex crispus</i>	3	Waste, rough, cultivated and marshy ground
	<i>Rumex</i> sp. perianth fragments	4	
Docks	<i>Rumex</i> sp.	10+14f	Cultivated, waste, open ground and shady places
Mallows	<i>Malva</i> sp.	1	All sorts of open ground
Sweet Violet	<i>Viola odorata</i> type	9+2f	Woodland, scrub and hedgerows, mostly on base-rich soils
Violets	<i>Viola</i> sp.	4	Woodland and hedgerows
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	15	Cultivated and other open ground
Black Mustard	<i>Brassica nigra</i>	15f	Sea-cliffs, river banks, rough ground and waste places
Cabbages	<i>Brassica</i> sp.	1+7f	Many places
Radishes	<i>Raphanus raphanistrum</i> capsule fragments	6f	Cultivated and rough ground, waste places and tips
	base of Brassicaceous fruit	1	
Cross-leaved Heath	<i>Erica tetralix</i> seeds	4	Bogs and usually wet heaths and moors
Cross-leaved Heath	<i>Erica tetralix</i> leaf	1	Bogs and usually wet heaths and moors
Cowslip	<i>Primula cf veris</i>	1	Grassy places usually on light base-rich soils
Meadowsweet	<i>Filipendula ulmaria</i>	2f	All sorts of wet and damp places
Bramble	Rubus section 2 Glandulosus (<i>Rubus fruticosus</i> agg.)	2+6f	All sorts of habitats both natural and man-made
Cinquefoils	<i>Potentilla</i> sp.	2	Variety of habitats
Wild Strawberry	<i>Fragaria vesca</i>	49	Woods, scrub and hedgerows, possibly cultivated
Parsley-piert	<i>Aphanes arvensis</i>	1	Cultivated and other bare ground on well-drained soils
Rose	cf small <i>Rosa</i> sp.	1	Woods and hedges
Rose	<i>Rosa</i> sp.	1f	Woods and hedges
Bullace/Damson	<i>Prunus domestica</i> ssp. <i>insititia</i> half stones	1	Hedges, copses, scrub and wasteground, introduced
Plum/Bullace/Damson	<i>Prunus</i> sp. stone fragments	14f	
Apple	<i>Malus</i> sp. core fragments	27	Woods, hedges and scrub, could be the cultivated species
Rose Family	Rosaceae prickles	7	
Clover (White Clover)	<i>Trifolium</i> sp. calices (most likely <i>T. repens</i>)	57	Grassy and rough ground
Clover (White Clover)	<i>Trifolium</i> sp. flowers	27	Grassy and rough ground
Clover (White Clover)	<i>Trifolium</i> sp. petal fragments	88	Grassy and rough ground
Grape	<i>Vitis vinifera</i>	3+3f	Cultivated but naturalised in hedges and scrub and by tips
Hemlock	<i>Conium maculatum</i>	2	Damp ground, roadsides, ditches, waste ground

Celery	<i>Apium graveolens</i>	1	Damp barish usually brackish places near sea. Possibly the cultivated variety, var. <i>dulce</i>
Garden Parsley	<i>Petroselinum crispum</i>	1	Cultivated and frequent escape on tips and in waste places
Parsnip	<i>Pastinaca sativa</i>	1f	Cultivated or if wild, grassland, roadsides, rough ground, especially on chalk and limestone
Hogweed	<i>Heracleum sphondylium</i>	1f	Grassy places, rough ground, roadsides and banks
Knotted Hedge-parsley	<i>Torilis nodosa</i>	1	Arable and barish ground, especially near sea
Carrot Family	Apiaceae indet	6f	
Henbane	<i>Hyoscyamus niger</i>	1	Maritime sand and shingle, inland rough and waste ground, especially manured by rabbits or cattle
Bittersweet	<i>Solanum dulcamara</i>	8	Walls, hedges, woods, ditches, fens, pondsides, rough ground and shingle beaches
Fringed Water-lily	<i>Nymphoides peltata</i>	6+2f	Possibly native; in ponds and slow rivers; fens of E. Anglia and Thames basin
Vervain	<i>Verbena officinalis</i>	2	Barish ground and rough grassy places, on well-drained often calcareous soils
Hedge Woundwort	<i>Stachys sylvatica</i>	1	Woods, hedgerows, rough ground
Purple Dead-nettle	<i>Lamium purpureum</i>	4	Cultivated and waste ground
Selfheal	<i>Prunella vulgaris</i>	4	Grassland, lawns, wood-clearings, rough ground
Corn/Water Mint	<i>Mentha arvensis/aquatica</i>	1+1f	Arable fields, wood-clearings, damp places including marshes, ditches, wet fields and by ponds
Greater Plantain	<i>Plantago major</i>	2	Open and rough ground, either cultivated or grassy and on lawns
Yellow-rattles	<i>Rhinanthus</i> sp.	1	Grassy places
Elder	<i>Sambucus nigra</i>	4+1f	Hedges, woods, shrubberies, waste and rough ground, especially on manured soils
Wild Teasel	<i>Dipsacus fullonum</i>	1	Marginal habitats and rough ground by roads, railways, streams, woods and fields
Cornflower	<i>Centaurea cyanus</i>	1	Cornfields
Nipplewort	<i>Lapsana communis</i>	1	Open woods, hedgerows, waste and rough ground
Rough Hawkbit	<i>Leontodon hispidus</i>	4	Basic, often calcareous, grassland
Smooth Sow-thistle	<i>Sonchus oleraceus</i>	1	Waste and cultivated ground, roadsides
Prickly Sow-thistle	<i>Sonchus asper</i>	3	Waste and cultivated ground, roadsides
Prickly Lettuce	<i>Lactuca serriola</i>	4	Waysides and waste and rough ground
Daisy	<i>Bellis perennis</i>	1	Short grassland
Feverfew	<i>Tanacetum parthenium</i>	6	Introduced, naturalised on walls, waste ground and waysides
Yarrow	<i>Achillea millefolium</i>	4	Grassland, (usually short), banks and waysides
Stinking Chamomile	<i>Anthemis cotula</i>	5	Arable land, waste places and rough ground on heavy soils
Corn Marigold	<i>Chrysanthemum segetum</i>	2f	Casual weed of arable fields, waste places and waysides
Oxeye Daisy	<i>Leucanthemum vulgare</i>	2	Grassy places, especially on rich soils
Common Ragwort	<i>Senecio jacobea</i>	5	Grassland, waysides, waste ground, sand-dunes
Daisy Family	Asteraceae indet	5f	

Water-plantain	<i>Alisma plantago-aquatica</i>	1	In or by ponds, ditches, canals and slow rivers
	<i>Alisma</i> sp. embryo	1	
	Alismataceae embryo	1	
Horned Pondweed	<i>Zannichellia palustris</i>	2	Rivers, streams, ditches and ponds, fresh or brackish waters
Rushes	<i>Juncus</i> spp.	31	Various damp/wet habitats
Common Spike-rush	<i>Eleocharis palustris</i>	17+1imm	In or by ponds, marshes, ditches, riversides
Wood Club-rush	<i>Scirpus sylvaticus</i>	1	By streams and in marshes and damp spots in woods or shady places
Sedges	<i>Carex</i> sp. (lenticular)	41+1f	Various damp/wet habitats
Sedges	<i>Carex</i> sp. (trigonus)	16	Various damp/wet habitats
Grasses	Small Poaceae < 3mm	(4)*	Various grassland habitats
Grasses	Large Poaceae > 3mm	12	Various grassland habitats
Heath-grass	<i>Danthonia decumbens</i>	1	Sandy or peaty often damp soil, usually acid, mostly on heaths, moors and mountains
Branched Bur-reed	<i>Sparganium erectum</i>	1	Ponds, lakes, slow rivers and canals, in marshy fields and ditches
Bur-reed	<i>Sparganium</i> sp. embryos	7	
Bur-reed	? <i>Sparganium</i> sp. type 2 embryo	14	
Onion/Garlic/Leek	<i>Allium</i> sp. seed fragment	1	Possibly cultivated
Macaroni/Rivet	<i>Triticum durum/turgidum</i> rachis fragment	1	Cultivated
Rye	<i>Secale cereale</i> rachis fragments	7	Cultivated
	Cerealia indet (charred)	1f	
	Culm nodes	5	Key
	Tree buds and budscapes (<i>mostly Fraxinus excelsior</i>)	(3) + 1 ch	* Abundance of the remains within the sample with (1) being rare and (5) very abundant
	Leaf fragments	(5)	ch = charred
	Charcoal	(3)	f = fragment
	Musci	(2)	imm = immature
	?	9	
	Molluscs including opercula	(2)	
	Snail eggs	(4)	
	Caddisfly larval cases	7	
	Insect remains	(2)	
	Worm cocoons	(2)	
	Shark/Ray denticle		
	Eel vertebrae		
	Fish bone, scale and vertebrae	(4)	
	Small bird metatarsal		
	Duck/Chicken vertebrae		

	Eggshell	4f	
	Unerrupted Pig molar		
	Miscellaneous bone	(3)	
	Leather fragments	13	
	Small mammal teeth	2	

Table WP5: The late 15th/early 16th century waterlogged plant remains from context 3446 showing their habitat preferences

Sample no.	9048
Layer	3446
Feature Type	Dump
Date	Late C15/C16
Common Name	Species
Food/Exotic plants	
Larkspur	<i>Consolida regalis/ajacis</i>
Fig	<i>Ficus carica</i>
Walnut	<i>Juglans</i> sp. nutshell < 10mm
Cabbages	<i>Brassica</i> sp.
Bullace/Damson	<i>Prunus domestica</i> ssp. <i>insititia</i> half stones
Plum/Bullace/Damson	<i>Prunus</i> sp. stone fragments
Apple	<i>Malus</i> sp. core fragments
Grape	<i>Vitis vinifera</i>
Celery	<i>Apium graveolens</i>
Garden Parsley	<i>Petroselinum crispum</i>
Parsnip	<i>Pastinaca sativa</i>
Feverfew	<i>Tanacetum parthenium</i>
Onion/Garlic/Leek	<i>Allium</i> sp. seed fragment
Macaroni/Rivet	<i>Triticum durum/turgidum</i> rachis fragment
Rye	<i>Secale cereale</i> rachis fragments
	Cerealia indet (charred)
	Culm nodes
Arable/disturbed/waste ground	
Poppy	<i>Papaver</i> sp.
Stinging Nettle	<i>Urtica dioica</i>
Small Nettle	<i>Urtica urens</i>
Nettle-leaved Goosefoot	<i>Chenopodium murale</i>
Fat-hen	<i>Chenopodium album</i>
	Chenopodiaceae indet
Thyme-leaved sandwort	<i>Arenaria serphyllifolia</i> ssp. <i>leptocladus</i>
Common Chickweed	<i>Stellaria media</i>
Corncockle	<i>Agrostemma githago</i>
White Campion	<i>Silene</i> cf <i>latifolia</i>
Redshank	<i>Persicaria maculosa</i>
Pale Persicaria	<i>Persicaria lapathifolia</i>
Knotgrass	<i>Polygonum aviculare</i>
Curled Dock	<i>Rumex crispus</i>
Docks	<i>Rumex</i> sp.
Mallows	<i>Malva</i> sp.
Shepherd's-purse	<i>Capsella bursa-pastoris</i>
Black Mustard	<i>Brassica nigra</i>
Radishes	<i>Raphanus raphanistrum</i> capsule fragments
	base of Brassicaceous fruit
Parsley-piert	<i>Aphanes arvensis</i>
Knotted Hedge-parsley	<i>Torilis nodosa</i>
Carrot Family	Apiaceae indet
Henbane	<i>Hyoscyamus niger</i>
Purple Dead-nettle	<i>Lamium purpureum</i>
Cornflower	<i>Centaurea cyanus</i>

Nipplewort	<i>Lapsana communis</i>
Smooth Sow-thistle	<i>Sonchus oleraceus</i>
Prickly Sow-thistle	<i>Sonchus asper</i>
Prickly Lettuce	<i>Lactuca serriola</i>
Stinking Chamomile	<i>Anthemis cotula</i>
Corn Marigold	<i>Chrysanthemum segetum</i>
Grasslands	
Buttercups	<i>Ranunculus</i> subgenus <i>Ranunculus</i>
Lesser Stitchwort	<i>Stellaria graminea</i>
Cowslip	<i>Primula cf veris</i>
Clover (White Clover)	<i>Trifolium</i> sp. (most likely <i>T. repens</i>)
Hogweed	<i>Heracleum sphondylium</i>
Vervain	<i>Verbena officinalis</i>
Selfheal	<i>Prunella vulgaris</i>
Greater Plantain	<i>Plantago major</i>
Yellow-rattles	<i>Rhinanthus</i> sp.
Rough Hawkbit	<i>Leontodon hispidus</i>
Daisy	<i>Bellis perennis</i>
Yarrow	<i>Achillea millefolium</i>
Oxeye Daisy	<i>Leucanthemum vulgare</i>
Common Ragwort	<i>Senecio jacobea</i>
Grasses	Poaceae
Heaths & bogs	
Bracken	<i>Pteridium aquilinum</i> pinnules
Sheep's Sorrel	<i>Rumex acetosella</i>
Cross-leaved Heath	<i>Erica tetralix</i>
Heath-grass	<i>Danthonia decumbens</i>
Aquatic	
Fringed Water-lily	<i>Nymphoides peltata</i>
Water-plantain	<i>Alisma plantago-aquatica</i>
Horned Pondweed	<i>Zannichellia palustris</i>
Branched Bur-reed	<i>Sparganium erectum</i>
Wetland	
Marsh-marigold	<i>Caltha palustris</i>
Lesser Spearwort	<i>Ranunculus flammula</i>
Blinks	<i>Montia fontana</i> ssp. <i>chondrosperma</i>
Bog Stitchwort	<i>Stellaria uliginosa</i>
Ragged-Robin	<i>Lychnis flos-cuculi</i>
Meadowsweet	<i>Filipendula ulmaria</i>
Hemlock	<i>Conium maculatum</i>
Bittersweet	<i>Solanum dulcamara</i>
Rushes	<i>Juncus</i> spp.
Common Spike-rush	<i>Eleocharis palustris</i>
Wood Club-rush	<i>Scirpus sylvaticus</i>
Sedges	<i>Carex</i> sp.
Woods/scrub/hedgebank	
Hazel	<i>Corylus avellana</i>
Greater Chickweed	<i>Stellaria neglecta</i>
Sweet Violet	<i>Viola odorata</i> type
Violets	<i>Viola</i> sp.
Wild Strawberry	<i>Fragaria vesca</i>
Rose	<i>Rosa</i> sp.
Rose Family	Rosaceae prickles
Hedge Woundwort	<i>Stachys sylvatica</i>

Elder	<i>Sambucus nigra</i>
	Tree buds and budscales (<i>mostly Fraxinus excelsior</i>)
	Leaf fragments
Various	
Bramble	Rubus section 2 Glandulosus (<i>Rubus fruticosus</i> agg.)
Cinquefoils	<i>Potentilla</i> sp.
Corn/Water Mint	<i>Mentha arvensis/aquatica</i>
Wild Teasel	<i>Dipsacus fullonum</i>
Daisy Family	Asteraceae indet