

Ancient Monuments Laboratory
Report 21/90

ENVIRONMENTAL EVIDENCE FROM THE
DOMINICAN FRIARY, BEVERLEY,
HUMBERSIDE.

E P Allison, A R Hall, H K Kenward,
W J B McKenna, C M Nicholson,
T P O'Connor.

AML reports are interim reports which make available the results of specialist investigations in advance of full publication. They are not subject to external refereeing and their conclusions may sometimes have to be modified in the light of archaeological information that was not available at the time of the investigation. Readers are therefore asked to consult the author before citing the report in any publication and to consult the final excavation report when available.

Opinions expressed in AML reports are those of the author and are not necessarily those of the Historic Buildings and Monuments Commission for England.

Ancient Monuments Laboratory Report 21/90

ENVIRONMENTAL EVIDENCE FROM THE
DOMINICAN FRIARY, BEVERLEY,
HUMBERSIDE.

E P Allison, A R Hall, H K Kenward, W J B McKenna,
C M Nicholson and T P O'Connor

Summary

A large number of samples from excavations of the Dominican Friary, Beverley, (11th-16th/17th century) has been processed by bulk-sieving. A proportion of the residues (and where appropriate, the washovers) from these has been sorted for animal and plant remains and artefacts. From some of the same contexts, and from another series of deposits not processed by bulk-sieving, subsamples have been treated as 'general biological analysis' samples, using 300 um sieves. A separate series of small subsamples has been analysed for parasite ova.

Many of the samples were effectively barren of waterlogged plant and invertebrate remains, though most produced at least a little charred material in the form of charcoal and charred cereal remains.

From a series of deposits formed at an early date from the western precinct boundary of the Friary it was clear that there had been an accumulation of richly organic material with evidence for textile processing..

Floors from the phase of construction and use of the 'Little Cloister' gave modest assemblages of snails. These were mostly taxa regularly recorded from urban archaeological sites, but in some cases there was a component that is likely to have originated in cut vegetation of the kind that would have been used for floor coverings or fuel.

Author's address :-

E Allison, A R Hall, H K Kenward, W J B McKenna,
C M Nicholson and T P O'Connor

Environmental Archaeology Unit
University of York
Heslington
YORK
YO1 5DD

c Historic Buildings and Monuments Commission for England

Environmental evidence from the Dominican Friary, Beverley

by

E. P. Allison, A. R. Hall, H. K. Kenward, W. J. B. McKenna,
C. M. Nicholson and T. P. O'Connor

Introduction

This report discusses the results of analyses of invertebrate animal and plant remains from deposits of 11th-16/17th century date excavated from the site of the Dominican Friary in Beverley. Limitations of time and technical assistance have precluded as detailed a survey as might have been desirable, but much useful information about the nature and formation of the deposits has been obtained.

Methods

Samples of raw sediment were taken by the excavator (a full list is given in Table 1). The majority of these have been processed by bulk-sieving (Kenward *et al.* 1980), the samples (of between 5 and 70 kg) being sieved by BMcK to 1 mm either on site or in the Environmental Archaeology Unit (EAU) after the sediment had been described. This resulted in a series of residues (retained on the mesh) and washovers (of lighter, mainly organic material, which was carried over from the samples by the water flow during sieving). Initially residues from a modest proportion of these samples were sorted (by BMcK) for the larger animal and plant remains and for artefacts (the latter being bagged separately and returned to the excavator). Selected residues and washovers were later sorted more thoroughly (by ARH) primarily for plant remains, though other components were recorded; they are listed in Appendix 1. (The residues from bulk-sieving consisted largely of stone and building debris, but also contained charcoal, seeds, mineralised root moulds, wood, nutshells, fragments of mammal, bird and fish bone, shellfish, snails, avian eggshell, earth worm egg capsules, and a few insect fragments. Some samples contained coke/clinker, coal, slag, glass and metal fragments. Washovers contained mainly charcoal, seeds, wood fragments, organic concretions, snail shells and coke/clinker. Bone from the residues will be reported elsewhere.)

Subsamples of raw sediment from selected samples were examined in the laboratory for parasite egg, insect and plant remains. A proportion of these were judged to have only a small organic content at the time at which the samples were inspected; their sedimentary characteristics were recorded, and no further action was taken (Table 1, column 'NFA').

Subsamples from fifteen samples were examined for the presence of eggs of intestinal parasites. Subsamples of 6 g were taken from the raw sediment and processed following a procedure outlined by the Ministry of Agriculture, Fisheries and Food (1977, 3) for examining modern faecal samples. Accurate identification of ova is only possible when samples are prepared using reagents which do not alter egg size (cf. Hall *et al.* 1983) - the method used in the present study is believed to be appropriate in this respect. All parasite ova recovered were counted and measured using an eyepiece graticule calibrated to a stage

micrometer. Ova of *Trichuris* and *Ascaris* were recorded. Measurements of those of *Trichuris* were compared with data given by Beer (1976), leaving little doubt that they were from the human whipworm *T. trichiura*. The ova of *A. lumbricoides* and *A. suum*, the large round worm of man and pigs respectively, are of identical size, and cannot be distinguished by measurement. A number of cysts of testate amoebae were also noted in the parasite samples; these are common soil organisms of no further significance.

A 'general biological analysis' was carried out on the twelve more 'promising' samples. 'Test' subsamples of 1 kg were taken and processed by paraffin flotation (Kenward *et al.* 1980) to extract insect remains. Six of these produced sizeable assemblages of beetles (Coleoptera) and bugs (Hemiptera) and numbers of individuals ('N' in Appendix 3) and numbers of taxa ('S' in Appendix 3) from each sample were recorded. Taxa were divided into broad ecological groups for analysis, following the methods of Kenward *et al.* (1986), using a PASCAL computer program (written by HKK). Diversity of the assemblages was estimated by calculating the value of α of Fisher *et al.* (1943). Other insect and invertebrate taxa present in the flots were also recorded but were not included in the statistics.

Plant remains were recorded from both the flots from paraffin flotation and from the residues; the latter were mostly examined wet. Components other than plant macrofossils were also recorded (Appendix 1), as for the bulk-sieved samples. For all the lists in Appendix 1 the remains have been scored using a three- (bulk-sieved) or four-point (test samples) scale of abundance. For the three-point scale this was 1 - rare to occasional, 2 - frequent to common, 3 - abundant; for the four-point scale, the scores were 1 - rare; 2 - occasional; 3 - frequent to common; 4 - abundant; and for discrete items such as whole seeds or fruits the numbers can be translated as 1 - 1-4 per kg, 2 - 5-ca49, 3 - ca50-200, 4 - more than ca200. The lists of identifiable plant remains have been subjected to computer analysis in which each taxon is assigned to one or more ecological and use groups (Appendix 2). For each of the test samples, the numbers and percentage of taxa scoring in each group are presented, together with a statistic - the abundance-indicator value (AIV) - which reflects both the abundance of the taxa scored for that group in the sample and how indicative the taxa are for the group. Thus a taxon which has an abundance score of 3 and is a good indicator of, say, cornfields, will have an AIV of 9 (the product of these) and this AIV contributes to the total AIV for group SECA (cornfield weeds) for the sample. (A more detailed explanation of this method is given by Hall and Kenward, forthcoming.)

All data pertaining to these biological analyses are stored on the mainframe computer at the University of York and as paper copy within the EAU.

The samples and results of the analyses

The analyses carried out on each sample, and the remains recovered, are described below, together with a laboratory description of the sediment where available. The order follows the phasing supplied by the excavator; within contexts, samples are presented in numerical order. A brief archaeological description and/or interpretation of the context is given in brackets. Sample-by-sample species lists of plants and insects are given in Appendices 1 and 3 and derived statistics in Appendices 2 and 3. A complete list of taxa recorded from the site in these analyses is given in Table 2.

Phase 1

Context 1195 [fill of a shallow depression]

Sample 145 (not described; 1195 recorded as cut number in excavation report)

A 13 kg sample of sediment was bulk-sieved but the residue was not sorted. The tiny washover produced only a trace of charcoal.

Sample 91195 Light to mid grey/grey-brown moist plastic silty clay.

A 13 kg sample was bulk-sieved but the residue was not sorted. The raw material was examined in the laboratory but no further action taken.

Context 1149 [pit fill]

Sample 48 Grey silty clay with yellow patches of hard clay.

A 34.5 kg sample of sediment was bulk-sieved but only the washover was examined; this yielded traces of charred cereals and weeds of no interpretative significance.

Sample 116 Mixed orange-brown and dark-mid grey silty clays.

A 28 kg sample of sediment was bulk-sieved but not sorted.

Context 1184 [clay-filled scoop]

Sample 143 (not described; 1184 recorded as scoop cut in excavation report)

An 8 kg sample was bulk-sieved but not sorted.

Sample 91184 Light grey-brown moist plastic silty gleyed clay with mica fragments.

An 8 kg sample of sediment was bulk-sieved and the washover examined. Only traces of *Fumaria* sp(p). (fumitory) and *Avena* sp(p). (oat) were recorded. The raw material was examined in the laboratory but no further action taken.

Context 1210 [primary fill of feature 1187]

Sample 50 Black, soft, peaty, ashy organic sediment with patches of soft greenish-grey clay.

An 18 kg sample of sediment was bulk-sieved but only the residue was examined in detail. It yielded a modest assemblage of plant remains including charred cereals, some of which were identifiable as barley and bread/club wheat. There were also fragment of the rachis (stalk) from the ears of either or both of these crops. All the other remains were weeds of waste places and cultivated soils, though there was a trace of hemp (*Cannabis sativa*), perhaps another crop plant. The residue also contained small amounts of daub-like material and charcoal.

Sample 109 Very dark grey-black silt with a high percentage of charcoal.

Bulk-sieving carried out (weight not recorded); no further action.

Sample 147 (not described)

An 8 kg sample was bulk-sieved but there was no further action.

Sample 91210 Black, wet, smeary silt with abundant charcoal and patches of olive, dark grey and mid grey material. It was considered to probably be mainly charcoal.

An 8 kg subsample was bulk-sieved and a 1 kg 'test' subsample was processed by paraffin flotation.

The washover from the bulk-sieved subsample contained a modest number of charred cereal grains of barley, with traces of cultivated oats (*Avena sativa*), though much of the grain was too badly damaged (?during charring) to be identified beyond *Cerealia* indet.

There was also a component of charred chaff fragments; this may have been threshing waste or simply debris from the disintegration of whole cereal spikelets between charring and deposition, or during disaggregation in the laboratory. The remainder of the assemblage comprised mainly weed seeds, many of them charred; these were probably crop contaminants. Hempseed was again present.

No insect or other invertebrates were recovered from the flot from the 'test' subsample and no parasite ova were present in the 6 g subsample. The flot and residue contained quite a lot of plant material, however, most of it charred cereals and cereal chaff.

It seems most likely that charred cereal waste was discarded in this feature; the absence of more than traces of other rubbish suggests that perhaps this was fairly pure, rather than a mixture of domestic waste.

Context 1186 [upper fill of 1187]

Sample 87 Soft, sticky orange and grey clays mixed with charcoal.

A 20 kg subsample was bulk-sieved. The residue contained abundant, mainly waterworn, stones. Charcoal was also abundant. A small quantity of slag, brick/tile fragments, several charred cereal grains (?barley and oats), and a few fragments of mammal and fish bone were also recorded. The washover contained abundant charcoal. It appears likely that this deposit was a dump rather than a primary ditch fill; the description of the material as a sticky clay in the laboratory is at variance with the excavators' description of it as 'silt'.

Context 1209 [panned clay merging with 1186]

Sample 97 Dark grey and brown silty sands with abundant charcoal inclusions.

A sample of 21 kg was bulk-sieved. Stone, daub and half-fired clay or brick/tile were abundant in the residue, as was charcoal. A few, mostly burnt, fragments of large and small mammal and fish bone were present. The washover from the bulk-sieving consisted mainly of charcoal but charred grain was also present, together with a few weed seeds, hazelnut shell fragments and hempseed.

Context 1214 [cut fill]

Sample 51 Grey and yellow silt.

A sample of 11 kg of sediment was bulk-sieved. The residue was mainly daub and stone, some of which were chalk. There was also some slag and a few fragments of mammal bone. The washover consisted of charcoal with traces of waterlogged plant remains, including shoot fragments of the bog moss, *Sphagnum imbricatum*, discussed in more detail below.

Sample 148 (not described)

A 9 kg sample of sediment was bulk-sieved but no further action taken.

Sample 91214 Dark grey moist-wet, plastic-crumbly, fairly homogeneous, slightly sandy clay silt, with some charcoal and chalk fragments.

A 9 kg subsample was bulk-sieved. There was some modern contamination of the sample - a centipede was found in the washover during processing - but no further action was taken. A 1 kg 'test' sub-sample was processed by paraffin flotation. No insect or other invertebrates were recorded from the flot and no parasite ova were recorded from the separate 6 g subsample examined.

Context 1215 [fill of cut 1197]

Sample 126

Bulk-sieving carried out, though no weight was recorded. Brick/tile, stone, daub and charcoal were abundant in the residue. Charred grain, mortar/plaster, coal, slag and mammal and fish bone were present in small quantities. The very small washover consisted almost entirely of charcoal with small numbers of charred barley, wheat and unidentified cereal grains.

Context 1216 [fill of cut 1197]

Sample 83 Mixed blue-grey and orange sticky clay.

Bulk-sieving was carried out on a 9 kg sample. The residue was very small and consisted mainly of stone, charcoal and root moulds, with some slag and a fragments of bone. It was not examined further.

Context 1212 [pit fill]

Sample 7 (not described)

An 8 kg sample was bulk-sieved but not examined further.

Sample 22 Black soft ash.

A 5 kg sample of sediment was bulk-sieved but not examined further.

Sample 23 Black ash with red patches of burnt clay.

A 13 kg sample of sediment was bulk-sieved but not examined further.

Sample 76 Very heterogeneous dark grey-black and brown sticky silt with gravel, brick and other inclusions.

A 13 kg sample of sediment was bulk-sieved. The residue consisted chiefly of daub, charcoal and stone (some of which was burnt oolitic limestone). Slag, and a few fragments of large and small mammal and fish bone were also present. The washover consisted of fragments of charcoal. The only identifiable plant remains were trace amounts of charred barley.

Sample 99 Soft, very dark grey-black clay silt with abundant charcoal.

A 10 kg sample was bulk-sieved. Brick/tile, daub and charcoal were abundant in the residue. Some mortar/plaster, slag, charred grain, and a few fragments of large and small mammal and fish bone were also present. The washover consisted mainly of charcoal with a little charred (barley) grain and charred weed seeds.

Context 925 [cut fill - ?not mentioned in excavation report]

Sample 39 Dark grey silt, burnt clay and ash.

A 6 kg subsample of sediment was bulk-sieved. The residue consisted chiefly of daub with abundant stones and charcoal. Burnt fragments of both large and small mammal bone were also present. There was no washover from the bulk-sieving and the residue was not re-examined.

Phase 2

Context 959 [silt filling depression 1158]

Sample 3 Wet dark grey silt.

A 25 kg sample of sediment was bulk-sieved. Only the washover was examined; this yielded trace amounts of several weeds, charred bread/club wheat grains, hempseed and blackberry (see list in Appendix 1), but this small assemblage cannot be used interpretatively.

Sample 8 Wet dark grey silt.

A sample of 21 kg was bulk-sieved; the plant macrofossils from the washover were rather similar to those from Sample 3, though hemp and wheat were lacking.

Samples 4, 9-11, 65-74, 107-8, 114 Various described as wet, sticky mid to dark grey silt, oxidising grey-brown at the surface, sometimes with yellow or pinkish-orange clay patches.

A total of 460 kg was bulk-sieved but no further examination was made

Context 958 [levelling to fill depression 1158]

Sample 60 Moist slightly clayey grey silt.

Bulk-sieving was carried out on 27.5kg of sediment. The plant macrofossils recovered from the washover were mostly from plants that are weeds of cultivated soils and waste places, but with traces of hempseed and hazelnut shell, wheat and blackberry. The presence of bogbean (*Menyanthes trifoliata*) and sedge (*Carex* sp(p).) may point to damp habitats nearby, or the inclusion in the deposit of, say, reworked fen peat, though this is hardly conclusive.

Sample 103 Wet, soft, very dark grey silt.

A 25 kg sample of sediment was bulk-sieved. Stone and charcoal made up a large proportion of the residue. There were also many small fragments of mammal and fish bone, slag, mortar/plaster and brick/tile fragments. Charcoal and seeds were abundant in the washover. Again there was an assemblage of plant remains from the washover that was dominated by weeds, but with hempseed once more present, together with bogbean and sedges.

Samples 2, 29, 30-33, 59, 61-4, 115 Dark grey silts.

A total of 295.5 kg was bulk-sieved but none of the residues were examined.

Context 957 [silt filling depression 1158]

Sample 36 Moist dark grey silt.

Bulk-sieving was carried out on 14.5 kg of sediment. The residue was mainly stone but brick/tile, slag, lead, charcoal, and a few fragments of mammal and fish bone were also present. The washover was small, consisting of charcoal and plant fragments and some woody seeds. The plant macrofossils 'rough-sorted' from the residue and sorted more diligently from the washover were a depauperate collection of the same taxa as those from 958 and 959 and have little interpretative significance.

Context 924 [layer pre-dating construction activity]

Sample 26 Moist grey silt.

A sample of 32 kg was bulk-sieved, but the washover yielded only traces of two plants, some charcoal and amphibian bone; the residue was not examined further.

Samples 1, 24-5, 27-8, 57-8 Moist grey to dark grey-brown silts.

A total of 172.5 kg was bulk-sieved but no further action taken.

Context 1188 [?fill]

Sample 5 Wet dark grey silt.

A sample of 32 kg of sediment was bulk-sieved and plant macrofossils recorded from the washover. The included a modest range of weed taxa, together with some plants suggestive of damp soils (*Thalictrum flavum*, *Menyanthes*, *Scirpus lacustris* and *Eleocharis palustris*). The trace amounts of amorphous peat in this fraction may point to the presence either of reworked peat incorporated into the sediment (along with small amounts of occupation debris) or the growth of a marsh/fen kind of vegetation at or very near this part of the site.

Sample 16 Moist dark grey silt.

A sample of 15 kg of sediment was bulk-sieved. The washover yielded trace amounts of weed taxa, with evidence, again, for plants of waterlogged soils or marginal-aquatic environments - *Scirpus* cf. *lacustris*, *Eleocharis palustris*, together with saw-sedge, *Cladium mariscus*.

Sample 75 Wet, dark grey silt with chalk gravel inclusions.

A 28 kg sample of sediment was bulk-sieved and the residue gave a very small list of plant taxa most of which might merely have been weeds. The presence of fish bone and scale and mammal bone with chalk, charcoal and mortar suggests the incorporation of occupation debris into the deposit.

Sample 92 Wet dark grey-brown silt.

A sample of 25 kg of sediment was bulk-sieved. Stones, charcoal and bone fragments were abundant in the residue. Mortar/plaster fragments, slag, wood, a hazelnut shell fragment, a few fragments of oyster shell, and avian eggshell fragments were also recorded. Seeds were abundant in the washover but this fraction was not examined in detail.

Sample 105 Wet, smooth, soft, smelly (anoxic), cohesive and adhesive, silty clay; dark grey/black internally and pale brown externally.

A 28 kg sample of sediment was bulk-sieved. The residue mainly comprised pebbles and gravel, and charcoal. A few fragments of mammal and fish bone were also present. The washover was mainly of charcoal with some seeds, though these were not examined further.

Sample 110 Wet, soft, dark grey-brown clay silt (?organic).

Bulk-sieving was carried out on a 26 kg sample of sediment. The washover yielded a small number of taxa, mostly weeds, with traces of unidentified charred cereal grains and wheat caryopses.

Samples 12-15, 77, 144 Wet or moist dark grey silt or grey silty clay.

A total of 171 kg was bulk-sieved but no further action was taken.

Sample 91188 Mid/dark grey-brown, moist, plastic to crumbly, ?slightly humic silty clay.

A subsample of 13 kg of sediment was bulk-sieved but not examined further. More of the raw sediment was examined in the laboratory. A 1 kg 'test' subsample was processed by paraffin flotation. The very small insect assemblage obtained (4 fragments) was uninterpretable. A single *Trichuris* ovum was recorded from a 6 g subsample; this is at the level of contamination or background.

Plant remains from the flot and residue from this subsample formed a modest assemblage. The only taxa scoring more than 1 (trace amounts) were stinging nettle (*Urtica dioica*), fat hen (*Chenopodium album*), deadnettles (*Lamium* Section *Lamiopsis*) (all scoring 2) and mud rush (*Juncus gerardi*) (scoring 3). The last of these is usually found today in the upper reaches of salt marshes and would be unexpected as far inland from, for example, the Humber estuary, as Beverley. However, there is evidence that it may have been formerly more widespread in the less saline parts of coastal meadows and perhaps therefore more widely distributed in inland habitats. Another explanation that has been put forward for the regular records of seeds of this plant (together with other, more definitely halophyte taxa) from Roman York is that it arrived in the town in the guts of cattle grazed a day or two previously on salt marsh downstream (Kenward *et al.* 1986; Hall and Kenward, forthcoming). The same group of probable marsh/fen or waterside taxa recorded from other samples from this context were also present here (giving a rather high AIV for group PHRA, cf. Appendix 2).

Context 1206 [?platform]

Sample 49 Moist grey and yellow clay.

A 20 kg sample was bulk-sieved; the washover gave a small assemblage of plant remains with some charcoal and traces of coal and wood fragments. The plant taxa are essentially weeds or indicators of human occupation (hazelnut shell, bread/club wheat) and offer little useful interpretative information.

Sample 78 Wet brownish-grey silty clay with dark orange clay inclusions.

A sample of 25 kg was bulk-sieved. Stone and slag were abundant in the residue. A few fragments of bone and charcoal were present. The washover consisted of charcoal.

Sample 146 (not described)

A sample of 20 kg was bulk-sieved but no further action was taken.

Sample 91206 Clay.

A 20 kg subsample was bulk-sieved and a subsample of raw sediment was examined in the laboratory but no further action was taken.

Context 1121 [?pit fill]

Sample 46 Moist grey clay with patches of harder yellow clay.

A 25 kg sample of sediment was bulk-sieved. Stone, mostly in the form of rounded pebbles, was very abundant in the residue. Slag, and a few fragments of mammal bone, fish bone, and shell were also present. The washover contained a small quantity of charred grain (recorded by BMcK), though this was not available for examination. The washover, when rechecked, was found to have traces of two weed taxa, together with charcoal, fish and mammal bone, shellfish shell fragments and slag.

Context 1146 [?not in excavation report; ?pit fill]

Samples 47 and 142 Moist grey silty clay, with patches of crumbly yellow-brown clay.

A total of 90.5 kg was bulk-sieved but not examined further.

Sample 91146 Mid grey/grey-brown to reddish grey brown, moist, plastic silty clay, with charcoal, bone and possibly redeposited natural inclusions.

A sample of 39 kg was bulk-sieved from which the washover yielded a small range of weed seeds, together with leaves and shoot fragments of the bog moss *Sphagnum imbricatum*, this last a typical component of Flandrian (post-glacial) raised bog peats and perhaps an indication of the exploitation an area of raised bog, or imported peat cut from such a location. Unfortunately, in the absence of peat fragments it is not possible to say which is the more likely explanation. A sample of the raw sediment was examined in the laboratory but no further action was taken.

Trench 2

Context 165 [stony clay on natural - ?stream bed]

Sample 165 Mid, grey-brown, moist, plastic, slightly sandy, silty clay, with a few small stones, vivianite and white flecks. (It is possible that this is a waterlain deposit, though if a stream bed a more silty sediment might be expected.)

The sample, taken from just above natural, was examined but was not thought worthy of further analysis.

Context 164 [black, greasy fill of U-shaped feature]

Sample 164 Mid grey, moist, plastic/crumbly, slightly sandy, silty clay, with abundant humified organic remains including wood, yellow patches, chalk gravel, a flint pebble, and a few tile fragments.

A 1 kg 'test' sub-sample was processed to extract insect remains and a reasonably sized assemblage of beetles and bugs was recovered (131 individuals of 71 taxa). The assemblage was fairly diverse ($\alpha = 63$, SE = 10) and outdoor forms were numerous (%S OB = 30; %N OB = 19). Aquatics made up 5% of the individuals (28% of the outdoor component); there were three *Ochthebius minimus* and two *Helophorus* sp., both common denizens of small water bodies. Decomposers were rather well represented, making up 62% of the individuals (%N RT); taxa coded rd contributed 17% of the assemblage, those coded rf only 3%. Much the most abundant taxon was a *Corticaria* sp., with 17 individuals. There were eight each of an aleocharine and a *Cryptophagus* species, and seven of a second species of *Corticaria*. It appears very likely that there was fairly dry decaying organic matter at or near to the point of deposition, but there is no evidence that this was very persistent. The fauna is very typical of that from the many urban sites examined, and includes some species which are largely, but not exclusively recorded from buildings. Conceivably some aquatics lived in the cut. The record of ephippia (resting eggs) of a water flea, *Daphnia* sp., from this sample supports this, but much of the fauna could be of background origin.

Other invertebrates recovered in the flot were: mites, a spider, an earthworm egg capsule, insect larvae, an earwig, parasitic wasps, fly puparia, heteropteran nymphs, a sheep ked (*Melophagus ovinus*), and a body segment of a flea.

Two fertilized *Ascaris* ova were recorded from the 6 g parasite sample; given the presence of cereal 'bran' and other foodplants (below), this probably indicates the presence of some (?human) faeces in the deposit.

Plant remains from the flot and residue from this subsample of 164 were abundant and diverse. The best represented ecological and use groups were weeds of waste places and

cultivated land - some (e.g. docks and stinging nettles) more indicative of neglected land with a perennial weed flora, others annual weeds of regularly tilled soils. The single nutlet of cat-nip, *Nepeta cataria*, in this subsample may have originated in a plant in this category, though this is a species with medicinal uses and, like *Marrubium vulgare* (see below, sample 136) may have been grown deliberately in the area at this period, or earlier. Foodplants scored highly (Appendix 2) and the small fruit seeds of elder, blackberry and strawberry, together with wheat/rye 'bran' may be evidence of the presence of faeces, perhaps human. Other food remains included charred cereals, including barley showing signs of having started to sprout prior to charring; this may have been spoilt grain or perhaps waste from brewing, but the quantities of grain were not large.

Two dyeplants were recorded from this sample: weld (*Reseda luteola*) (which might easily also be a weed of waste places, especially on the kind of calcareous soil likely to have been prevalent in and around Beverley), and madder (*Rubia tinctorum*). The latter was recorded in some quantity from deposits excavated in 1984 in Eastgate, adjacent to the present site (McKenna, n.d., unpublished report; see also below, sample 167).

As is usual in medieval urban archaeological deposits, there was a component of wetland taxa, including marsh lousewort (*Pedicularis palustris*), saw-sedge and several mosses of marsh/fen habitats. They may have grown locally if there was a ditch or wet meadow in the vicinity, though there is no evidence for a ditch carrying nutrient rich water.

Context 169 [Black, greasy fill of U-shaped feature]

Sample 127 (no description)

A 14 kg sample of sediment was bulk-sieved. The residue consisted of wood fragments, mainly twigs, charcoal and stone. The washover was made up of wood fragments (small twigs) and plant debris; the plant macrofossils included several woody taxa which perhaps indicate the presence of scrub or a hedge, though this has not been confirmed by more detailed analysis. Charred cereals were quite well represented, including barley, bread/club wheat and cultivated oats. Mosses of marsh/wet grassland habitats were again present.

Context 167 [upper fill of U-shaped feature]

Sample 167 Mid/dark, varicoloured (grey with brown and olive mottling), moist, plastic/crumblly, humic, silty clay, with small patches of pure sand and organic detritus and twig fragments.

A 1 kg 'test' sub-sample was processed to extract insect remains and a large assemblage of 219 individuals of 96 beetle and bug taxa was obtained. Like the assemblage from the subsample of 164, it was also of rather high diversity ($\alpha = 65$; SE = 7) and included a substantial 'outdoor' component (%N OB = 18). There was a substantial proportion of decomposers (%N RT = 62), and rd taxa were quite important (%N RD = 22, N RD as %N RT = 35). 'Foul' decomposers were not especially important (%N RF = 5). A good number of taxa (22) were represented by three or more individuals. The more abundant were: *Lathridius minutus* group (17); a *Corticaria* sp. (16); *Anobium punctatum* (woodworm beetle; 10); *Cercyon analis*, a *Cryptophagus* sp. and an *Atomaria* sp. (all with 6). It appears that decomposer habitats for species favoured by fairly dry to somewhat damp material were available nearby or in the cut or that rubbish containing insects was thrown in, while a few taxa indicate the presence of fouler material. Woodworm is indicative of timber on a structural scale when found in large numbers; the longhorn *Gracilia minuta* attacks smaller wood, basket-work, and the like. The list obtained (Appendix 3) is subjectively very similar to that from 164/T.

Also present in the flot were: mites, spiders, an earthworm egg capsule, an abdomen of a louse (Ischnocera: Trichodectidae), parasitic wasps, adult flies (including a bibionid), fly puparia, a flea body segment, a speckled caddis wing, heteropteran nymphs and an aphid.

Plant remains were abundant in the flot and residue from the 'test' subsample. The

two kinds of macrofossil scoring 3 on a four-point scale of abundance were willow (*Salix* sp(p).) buds and epidermis of Cyperaceae (perhaps sedges, *Carex* sp(p).) which, together with a range of other taxa, may indicate the presence of wetland nearby by or the disposal of materials (perhaps cut vegetation for roofing or flooring?) exploited from it.

In addition to more madder root (scoring 2), a further dyeplant was recorded from this subsample - pod fragments of woad (*Isatis tinctoria*). Seeds of weld and leaf fragments of bog myrtle might also be present as waste from dyeing - both plants yield good yellow dyes, complementing the red of madder and blue from woad. The last-named was also recorded from Eastgate (McKenna, unpublished report). The presence of both flax seeds and capsule fragments perhaps gives evidence of textile working, too, though both might be present in waste from processing of seed for use as a food or as a source of linseed oil.

A further component of these deposits was evidently human faeces. Although the 6 g subsample examined for parasites yielded only a single ovum of *Ascaris*, disaggregation of a fragment of material in the residue thought to be a faecal concretion showed that both *Ascaris* and *Trichuris* were present. Wheat/rye 'bran' (and concomitant milled corncockle (*Agrostemma githago*) seed fragments) also support this interpretation. Faecal concretions made up a considerable proportion of the residue (scoring 3 on a four-point scale), though few fruit remains were present - merely apple endocarp ('core') and elderberry seeds.

Context 166 [cut fill]

Sample 136 (not described after sampling; field description as 'dark mottled and twiggy silt')

A sample of 20 kg was bulk-sieved; both washover and residue were available for examination in detail. Somewhat similar plant remains were recovered from this as from samples 164 and 167. Of note were the common nutlets of white horehound (*Marrubium vulgare*), a plant with medicinal uses, but equally likely to have grown in waste places or near hedges. Taxa that could be interpreted as coming from hedges or scrub are also rather well represented, though they may be debris from clearing such vegetation as much as evidence for its growth in the vicinity. Supporting evidence from insect remains would have been highly desirable.

Context 163 [layer of chalk and tile in clay]

Sample 163 Mid/dark, grey-brown, moist, plastic/crumblly, humic, silty clay, with large chalk fragments and some wood fragments.

A 1 kg 'test' subsample was processed by paraffin flotation and it yielded a rather small assemblage of beetles and bugs (60 individuals of 42 taxa). This assemblage was of quite high diversity ($\alpha = 62$; SE = 16) and included a very substantial proportion of 'outdoor' forms (%S OB = 40; %N OB = 30). A death assemblage of this kind seems very likely to have formed in the open. Aquatics were rather abundant, accounting for 10% of the whole assemblage and 33% of the outdoor component. Decomposers were rare - by comparison with most assemblages from occupation sites - making up only 38% of the fauna. Within this component, 'dry' (RD) decomposers were relatively poorly represented (7%), and 'foul' ones (RF) relatively numerous (8%). This is also characteristic of deposition in the open. Decomposers may have been attracted to the site of deposition, but the evidence is weak. The only numerous taxa were a *Corticaria* sp. (5 individuals), two aleocharine staphylinids (with 4 and 3 individuals), and *Platystethus arenarius* (3). Although uncoded, the aleocharines were quite possibly also decomposers. *Corticaria* species are mainly associated with rather dry decaying matter, and *P. arenarius* with foul matter, so it is more likely that these, and the rest of the assemblage, were of 'background' origin, deposited *in situ*, imported in 'clay', or of mixed origins.

Other invertebrates remains recovered in the flot were an earthworm egg capsule, an ostracod, mites, insect larvae, fly puparia, several individuals of at least two species of parasitic wasp, a caddis fly wing, and a heteropteran nymph.

A single *Trichuris trichiura* ovum was recorded from the sample examined for parasites, but no other evidence for faecal material was found amongst the plant remains. A more modest assemblage than those from 164 and 167 was present in this subsample and it was marked by the presence of a high proportion of perennial weeds (group ARTE, Appendix 2), perhaps suggesting the presence of neglected land in the area or of the use of the pit for the clearance of vegetation. Wetland taxa are again moderately well represented, notably celery-leaved crowfoot (*Ranunculus sceleratus*). This is usually taken to be an indicator of mud at the margins of ponds or ditches where there is disturbance and high nutrient status - for example, where cattle drink or where organic waste is being deposited. Together with five other taxa assigned to the group - especially the goosefoot, *Chenopodium* Section *Pseudoblitum* (also scoring 3) - this gives rise to the highest AIV for BIDE and suggests the presence of drying mud or a ditch in the vicinity. The extremely common achenes of stinging nettle (*Urtica dioica*) also suggest nutrient-rich soils, though this plant is also typically a plant of fens.

Context 199 [cut/gully fill?]

Sample 199 Mid grey/grey-brown, moist, plastic/crumby, clay silt, with some small stones and wood fragments, patches of sand and lumps of paler grey-brown clay.

The sample was examined but no further action was thought to be desirable.

Context 197 [cut/gully fill?]

Sample 197 Mid grey-brown, moist, plastic/crumby, slightly sandy clay silt, with some wood fragments and localised patches of greyish-red clay and plant detritus.

The sample was examined but no further action taken.

Context 209 [fill of flat bottomed feature 207]

Sample 209 Mid grey/grey-brown, moist, plastic/crumby, silty clay, with local sand patches.

The material was examined but no further action was taken.

Context 208 [pit fill (over 209)]

Sample 208 (no description made)

No action taken.

Context 198 [pit fill]

Sample 198 (not described)

The sample was examined in the laboratory but no further action taken.

Context 185 [pit fill]

Sample 185 Dark grey, moist, crumby, humic, sandy silt, with some wood and bone fragments, and patches of light grey clay and peaty organic matter.

A 1 kg 'test' sub-sample was processed by paraffin flotation to extract insect remains. An assemblage of 152 individuals of 65 beetle and bug taxa was obtained. It was of moderate diversity ($\alpha = 43$; SE = 6) and had a clear but modest 'outdoor' component (%S

OB = 25; %N OB = 14). This component in turn was of fairly low diversity (α OB = 32, although SE = 16), depressed by taxa such as *Platystethus nitens*, *Cercyon ustulatus* and *Carpelimus ?corticinus*, all of which might have exploited damp organic rich mud within the pit. Several other 'damp ground' and aquatic taxa may have been attracted to suitable, if transient, habitats in the pit. Such taxa made up three-quarters of the outdoor component. There was in addition a single ephippium of the water flea *Ceriodaphnia* sp.

Decomposers were numerically well represented and made up just over half the fauna (%N RT = 53). Dry decomposers were not very numerous (%N RD = 7) and foul decomposers just sufficiently abundant to suggest they found attractive habitats nearby (%N RF = 7). The decomposer component was of low diversity (α RT = 19; SE = 3). It is probable that some or all of the more abundant taxa invaded different aspects of the pit fills, ranging from somewhat to fairly foul matter.

Also recovered from the flot were: several species of adult flies (including several individuals of a bibionid) and fly puparia, two sheep keds *Melophagus ovinus* (evidence of sheep, sheepskins or wool), a thrip, two lice (including a species of Anoplura), parasitic wasps, a flea body segment, nymphs of two species of bug, mites, spiders, an earthworm egg capsule, and a *Ceriodaphnia* sp. ephippium. There was modern fly contamination.

A single *Trichuris trichiura* ovum was present in the sample examined for parasites. Cysts of testate amoebae were also noted.

Plant macrofossil remains were recorded in some quantity in the flot and washover, most notable amongst these being fruits and receptacular bracts of teasel. Indeed, one fragment comprising a group of associated bracts indicated that whole or partly fragmented teasel heads had been thrown into the pit. On initial inspection, it was thought that the material was of the wild teasel, *Dipsacus fullonum*, but closer examination of both fruits and bracts suggested fuller's teasel (*D. sativus*) might be the plant concerned (and it is interesting in this context to speculate, with regard to wool processing, about the possible significance of the sheep keds - see above - from the same deposit). In the light of this (presently tentative) determination, other fossil material of teasel heads from Eastgate (McKenna, n.d., unpublished report) and Coppergate, York (Hall, unpublished) requires urgent re-examination.

Possible evidence for textile dyeing resides in the abundant weld seeds and presence of leaf fragments and fruits of bog myrtle. The rest of the assemblage is accounted for by weeds (perennials being rather well represented (cf. sample 163/T), wetland taxa and perhaps also some grassland plants, though this last component is not sufficiently large to suggest the presence of, for example, cut vegetation like hay (cf. samples 134/B and 229/T).

Context 225 [pit fill]

Sample 134 Mid/dark, grey-brown, amorphous organic deposit, with some herbaceous detritus, twig fragments and lumps of light grey silty clay.

A 13 kg subsample of sediment was bulk-sieved and the residue and washover gave a very large assemblage of plant macrofossil remains (91 taxa), representing the highest number of groups (46) for any sample from the site (though most taxa were present in small numbers). This high diversity perhaps reflects a mixed origin for the remains for, although the majority are weeds, there are several plants suggestive of grassland, wetland and perhaps even heathland habitats. The record for trace amounts of dyer's greenweed (*Genista tinctoria*) stem fragments is of interest; this was an important dyeplant in the Anglo- Scandinavian period at York (to judge from evidence from three sites) and was probably used throughout the Middle Ages. It is also a plant of lowland pastures, however, and might have arrived in the town by other routes than deliberate collection for dyeing. Evidence for other possible dyeplants from 134/B is restricted to *Myrica* leaf fragments and fruits, and there are other uses to which this plant might have been put (including medicinal applications and brewing).

The records for culm-nodes ('knees') of cereals (and perhaps also grasses) argues for the presence of straw (and perhaps hay: though the data are not presented here, this subsample gave the second highest AIV for the grassland group MOAR for the site as a whole). Amorphous peat fragments were present at a score of 2 on a three-point scale and these may account for the records of wetland taxa like *Potentilla palustris*, *Hydrocotyle vulgaris* and *Menyanthes trifoliata*.

A 1 kg 'test' sub-sample was processed to extract insect remains. Apart from beetles and bugs, other taxa present in the flot were: *Ceriodaphnia* and *Daphnia* sp. ephippia, spiders, mites, insect larvae, a scale insect, fly puparia, larval spiracular processes of a Syrphidae sp., a bibionid fly, an earwig, parasitic wasps, and a head and abdomen (containing male genitalia) of *Pulex irritans*, the human flea.

An estimated 102 individuals of 71 beetle and bug taxa were recorded. The estimate of Fisher *et al.*'s α was high (103), with a SE of 21. This combined with the presence of a substantial 'outdoor' component (%S OB = 30; %N OB = 23), suggests exposure to the open air. (The presence of an *Olophrum* sp. offers a very small hint of an alternative source - in gathered moss, of which there was rather a diverse range). The water flea ephippia suggest that the pit held fairly clean water at some stage, unless the ephippia came from elsewhere. Water beetles were rare (only two individuals - *Helophorus* sp., and *Chaetarthria seminulum*; these may well have originated in waterside moss with *Olophrum* sp.).

Decomposers were fairly well represented (%N RT = 59), with the RD component modest for an urban assemblage (%N RD = 13) and the foul component quite substantial (%N RF = 10). The decomposer component was rather diverse (α RT = 41, although SE = 10). The species list gives some evidence that a few decomposers bred in or by the pit - there were eight *Lathridius minutus* group, six *Cercyon analis* and four *Platystethus arenarius*. There is no evidence of a long-lived foul decomposer community, although the syrphid fly, a 'rat-tailed maggot', probably did live there. It is possible that much of this fauna was introduced from elsewhere, in moss or water, in sweepings (in which the flea may have originated), and as background fauna. If so, the pit may have been short-lived or covered.

A single *Trichuris trichiura* ovum was recorded from the sample examined for parasites; the only other evidence for faeces is of ?faecal concretions from the bulk-sieved subsample, but their identity could not be confirmed.

Plant remains from the 'test' subsample were, again, abundant, well preserved and diverse in their origins. Together with *Juncus gerardi* (see above, sample 91188/T), there was a more strictly halophile plant, sea arrow-grass (*Triglochin maritima*), whose presence in the deposit is not easily explained unless brought to the town in the guts of livestock grazed on salt-marsh (the nearest would have been about 12-13 km away on the Humber foreshore). It is of interest, therefore, that this sample gave the third highest score (20) for the grassland group, MOAR, for the site, and the presence of grassland taxa in hay or herbivore dung is a possibility. Straw may also have been dumped in the pit (there were culm-nodes, as in the bulk-sieved subsample). The range of mosses is quite wide, with taxa of bark and shaded rocks predominating; some are taxa typically associated with medieval latrine pits (where they were certainly used as toilet paper), though all were present in small quantities and might have arrived accidentally on timber or as packing for goods in transit, for example. Stem fragments of dyer's greenweed were again present.

Sample 225 Dark grey, moist, plastic/crumby humic silt

The sample was examined but no further action taken, despite the difference in lithology between this and sample 134.

Context 223 [spread in pit]

Sample 139 (not described after sampling)

A sample of 18 kg of sediment was bulk-sieved. Twigs and fragments of bark, many of

them charred, were abundant in the residue, as were stone, charcoal, plant stems (again mostly charred), and organic concretions (?peat). Carbonised and uncarbonised seeds were also fairly abundant. Mortar/plaster, daub, hazelnut shell, moss, bone (mostly burnt), insect and fly puparia fragments, snails, shell and avian eggshell were also recorded. The washover was mainly of plant stems, charred grain and seeds. Wood, charcoal, moss, organic concretions (?undisaggregated humic sediment), and snails were present.

Although only a few snails were recovered from this sample, most were *Oxyloma pfeifferi* and *Zonitoides nitidus*, implying an input of vegetation from base-poor marsh. This perhaps correlates with the component of marsh/fen/waterside plant taxa from the residue and washover. This is especially so for mosses; the same five taxa contributing to both groups MARS and FENS resulted in an AIV of 10, the largest in each case for the samples from this site as a whole. There were certainly other components in the sample, however. The rachis and pinnule fragments of bracken (*Pteridium aquilinum*) perhaps indicate disposal of bedding, as might the culm-nodes of cereals and or grasses. Charred grains of wheat, oats and barley were all moderately well represented and all showed signs in some specimens of having begun to sprout prior to charring; it may be that this was spoilt grain that was deliberately burnt. Other food remains included charred field bean (*Vicia faba*) and ?pea (cf. *Pisum sativum*) and waterlogged remains of celery seed (*Apium graveolens*), apple (*Malus sylvestris*) and blackberry. The range of foodplants present is reflected in the high AIV for group FOOS, though it appears to have been non-faecal waste.

Context 215 [spread in pit]

Sample 137 (not described after sampling)

A 14 kg sample was bulk-sieved but only the washover was examined. This gave a small assemblage of plant remains including weeds and charred cereals in small to moderate quantities. The only unusual taxon was *Berula erecta*, an umbellifer of waterside habitats.

Context 231 [pit fill (primary)]

Sample 124 (no description after sampling; excavator described this as a 'soft dark brown organic silt')

A 9 kg sample was bulk-sieved. The residue was mainly charcoal, ?ash, wood and twig fragments with some chalk and charred grain (including wheat, barley and oats, some grains showing signs of germination, as in previous samples). Amongst the weed seeds (a good proportion of which were charred and are likely to have been crop contaminants), there were various other foodplants - field bean, hazelnut, 'cherry' (*Prunus* Section *Cerasus*), blackberry and linseed.

Context 229 [pit fill (over 231)]

Sample 229 Dark grey-brown, moist, crumbly, layered, ?silty, amorphous organic sediment, with traces of herbaceous detritus within laminae.

A 1 kg 'test' subsample was processed to extract insect remains. A beetle and bug assemblage of 106 individuals of 59 taxa was recovered. Other taxa recorded were: *Daphnia* sp. ephippia, mites, a spider, bug nymphs (all but one being heteropteran), a parasitic wasp, fly adults and puparia, a flea body segment, and insect larvae.

The beetle and bug assemblage was of moderate diversity ($\alpha = 55$, SE = 9), but had a rather small 'outdoor' component (%N OB = 9). Two of the most abundant taxa were, however, borderline in this respect but not coded 'ob' - *Carpelimus ?bilineatus* and *C. fuliginosus*. Decomposers made up 58% of the assemblage, and considerably more if some uncoded (u) probable decomposers are included. The more abundant taxa perhaps include

invading decomposers. *Carpelimus ?bilineatus* and *C. fuliginosus*, *Cercyon analis*, *C. atricapillus*, *Oxytelus sculptus* and *Sphaeridium bipustulatum* seem likely to have exploited foul organic matter in the pit, and others such as *Atomaria* sp., *Lathridius minutus* group, *Ptenidium* sp. and *Xylodromus concinnus* may have lived in the drier parts of the fill. It seems likely that there was some breeding - diversity of the RT component was fairly low (α RT = 21; SE = 5). There was probably some 'background' fauna, although this may have originated in sweepings, together with a suite of 'domestic', 'pest' and dry decomposer taxa. The specimens of the bean weevil *Bruchus ?rufimanus* may have been passed through human intestines if this was a cess pit.

Since only single ova of *Ascaris* and *Trichuris trichiura* were recorded from a 6 g subsample examined for parasite ova this seems unlikely, until the list of remains from the botanical analyses are consulted; here, faecal concretions score 2 and *Ascaris* and *Trichuris* ova were recorded from a fragment of concretion disaggregated in dilute hydrochloric acid and scanned quickly under the transmission microscope. The presence of modest number of fig (*Ficus carica*) seeds agrees well with this interpretation, though there are few other foods of this type in what is a very long species list.

The plant macrofossil assemblage is, in fact, the largest for the site, with 94 taxa (though it does not record the largest number of groups). One of the chief components is charred cereal remains, both caryopses (of wheat barley, and oats - including cultivated oats), but also chaff and culm-nodes, suggesting straw and threshing waste were also partly burnt prior to disposal. Hay and/or herbivore dung may also be present, for this assemblage has by far the highest AIVs (38 and 15 respectively) for grassland plants (groups MOAR and FEBR, to which many taxa are common) for the site.

Context 213 [?Occupation deposit] (not located in report)

Sample 213 (no description)

No action taken.

Phase 3A

Context 1074 [pit (hollow) fill in 1061]

Sample 42 Moist grey clay with very hard buff clay patches.

Bulk-sieving was carried out on 27.5kg of sediment but only the washover was examined. It gave a modest list of taxa, the only one of which was present in more than small amounts being deadnettle (*Lamium* Section *Lamiopsis*). Most of the other taxa were also weeds, though there was a distinct component of wetland plants, notably cf. *Oenanthe aquatica*, *Menyanthes trifoliata*, *Scirpus lacustris*, *Eleocharis palustris*, *Cladium mariscus* and probably most if not all of the *Carex* sp(p). The assemblage is too small for confident interpretation, however; the taxa are all regularly recorded from urban archaeological deposits of the medieval period.

Sample 118 Wet, sticky greenish-grey silty clay.

A 23 kg sample of sediment was bulk-sieved but no further action taken. A 6 g sample was examined for the presence of parasite ova but none were present.

Context 1047 [pit (hollow) fill, sealing/?plugging 1061]

Sample 123 (no description made after sampling; excavators' description is 'grey-green panned clay with charcoal flecking'.

A 14 kg sample was bulk-sieved, the residue rough-sorted and the washover examined

further in detail. There was small assemblage of weeds, together with blackberry and charred bread/club wheat; the residue contained modest amounts of chalk and of concreted root moulds (?associated with panning). There is thus little evidence for the origin of the deposit, though deliberately dumped clay soil with a 'background' content of seeds is a reasonable interpretation.

Context 1048 [pit fill in 1049]

Sample 41 Moist grey-brown silty clay.

Bulk-sieving was carried out on 20.5kg of sediment. Stones (mainly chalk gravel and rounded pebbles) and mineralised root moulds were abundant in the residue. A few fragments of mammal and fish bone were also recorded. The washover consisted of charcoal, some seeds (essentially of weeds), and a charred bread/club wheat grain.

Context 961 [contaminated layer] (not in excavation report?)

Sample 104 Wet, sticky, greenish brown silty clay, with abundant charcoal and chalk grit inclusions.

A 23 kg sample of sediment was bulk-sieved. Stones and root moulds were abundant in the residue, with small quantities of brick/tile, mortar/plaster, charcoal, slag, and mammal and fish bone. The washover was mainly charcoal with a few seeds of elderberry (*Sambucus niger*).

Phase 3B

Context 994 [trench/pit fill]

Sample 121 Light/mid yellow grey brown, moist, sandy clay silt, with chalk and mortar inclusions.

A 15 kg sample of sediment was bulk-sieved but no further action was taken.

A 1 kg 'test' sub-sample was processed by paraffin flotation but no insect remains were recovered. Plant remains were absent from the flot and residue, too; the latter consisted of abundant mortar and sand (probably decayed mortar), with moderate amounts of brick/tile and traces of chalk, charcoal, bone and mussel shell fragments.

A sub-sample was examined for parasite ova but none were noted.

Context 953 [cess pit fill]

Sample 113 Waterlogged, soft, sticky, gritty clay silt.

A 15 kg sample of sediment was bulk-sieved. Stone (mainly chalk), charcoal and root moulds were abundant in the residue, with some mortar/plaster, a few fragments of calcined mammal and fish bone, snails, oyster shell and avian eggshell. The washover contained abundant charcoal and very small root channels, with a trace amounts of charred bread/club wheat grain, elderberry seed and snails. The assemblage of snails from this sample was too small to be of interpretative value.

Two *Trichuris* ova were recorded from the 6 g subsample examined; this is barely evidence for the presence of faeces unless this kind of material was present in very small amounts through low input or because only very little had survived decay processes.

Phase 3C

Context 807 [floor silt]

Sample 122 Mid brown silt with abundant chalk grit.

A sample 22 kg of sediment was bulk-sieved. Stone, root moulds, brick/tile and charcoal were abundant in the residue, with smaller quantities of mortar/plaster, mammal and fish bone, and fragments of snail shell, oyster shell, and avian eggshell. There was no washover.

Context 1043 [floor silt] (?not in excavation report)

Sample 40 Moist gritty dark grey silt.

A 27 kg sample was bulk-sieved and the residue comprised stone (mainly chalk gravel and rounded pebbles) brick/tile, slag, root moulds, charcoal, coal, and fragments of mammal and fish bone. The washover contained two snail shells, slug granules and amphibian bone, with traces of two (weed) plant taxa of no interpretative value.

Sample 119 Wet, soft, grey/brown, silt with abundant chalk grit inclusions.

A 17 kg sample was bulk-sieved but no further action taken.

Sample 141 (no description after sampling)

Bulk-sieving was carried out on 19 kg of material but nothing more was done.

Context 1078 [floor silt (sweepings)] (?not in excavation report)

Sample 135 (no description after sampling)

A 24 kg sample of sediment was bulk-sieved. The residue consisted mainly of mortar, with stone and charcoal, and smaller quantities of brick/tile, slag, hazelnut shell, mammal and fish bone. The very small washover contained charcoal and traces of charred hazelnut shell.

Phase 4

Context 1095 [reredorter/conduit fill]

Sample 129 (no description made after sampling)

A 12 kg sample was bulk-sieved. The residue from this consisted mainly of stone (mostly chalk), mortar/plaster and charcoal. Brick/tile, fragments of twigs, coal, hazelnut shell fragments, a sloe (*Prunus spinosa*) fruitstone, and fragments of mammal and fish bone, oyster shell and avian eggshell were also present. The very small washover was mainly charcoal. There was thus only very limited evidence for the nature of the fill.

Context 1109 [cistern/water tank fill]

Sample 45 Wet, gritty, grey silt, with chalk rubble and peaty lumps, ?similar to samples from 1106 in appearance.

Bulk-sieving was carried out on 31.5kg of sediment. Oyster shell was abundant in the residue (this was extracted before sorting by ARH and is not recorded in large amounts in the list in Appendix 1), as was charcoal, with modest amounts of amorphous peat,

earthworm egg capsules, eggshell fragments and fish bone. The assemblage of seeds was dominated by weed taxa, but with wetland plants (probably from the peat), and traces of hempseed and fig (*Ficus carica*). Domestic refuse clearly formed a considerable proportion of the deposit and this may have included the peat (which may have been imported for fuel, though the exact nature of its use remains uncertain).

Context 1106 [cistern/water tank fill]

Sample 6 Moist, crumbly, black silt.

A 23 kg sample was bulk-sieved and both residue and washover sorted for plant remains. The bulk of the residue comprised amorphous peat fragments with a small range of plant taxa including bogbean and marsh pennywort (see below).

Samples 17-21 Moist, crumbly, black, organic silt, sometimes with hardened lumps.

Bulk-sieving was carried out on a total of 93 kg of sediment, but there was no further action. (sample 140 is described as containing many oyster shells.)

Sample 120 Dark brown, moist, crumbly, with ?lumps of peat in grey-brown humic silt matrix, ?wood fragments present. Contaminated by modern algae.

Bulk-sieving was carried out on about 12 kg of sediment. The main component in the residue was amorphous peat. Chalk gravel and oyster shell were also abundant. Small amounts of brick/tile, mortar/plaster, charcoal, worm egg capsules, and mammal and fish bone were recorded. Seeds were abundant in the washover and most of these were of bogbean (*Menyanthes trifoliata*) and marsh pennywort (*Hydrocotyle vulgaris*), together with other taxa of fen/marsh habitats are likely to have derived from the fen peat that formed such a large component of the fill. Why this should be so is difficult to explain unless the cistern was simply being used for the disposal of waste. There is some similarity here with a fill context associated with the Gilbertine Priory of St Andrew excavated at 46-54 Fishergate, York in 1985-6. Here amorphous peat formed a large proportion of layer 4188 (interpreted as a dump from robbing the lining of a drain or pit and dated to the mid to late 14th century).

A 1 kg subsample disaggregated by ARH gave essentially the same range of taxa, though it was only possible to look at each fraction very cursorily. Peat fragments again formed a major component of the residue.

Sample 140 Wet, dark grey-brown organic silt with abundant oyster shells.

The residue from a bulk-sieved sample of 35 kg contained rather large numbers of bogbean and marsh pennywort seeds and sedge nutlets, with some other aquatic or wetland taxa and large amounts of peat, as in the previous samples from this context.

Context 1107 [water tank/cistern fill]

Sample 132 (not described prior to processing)

A total of 30 kg of sediment was bulk-sieved. Oyster shell, chalk stones, peat fragments, faecal concretions and brick/tile fragments were abundant in the residue. Charcoal, seeds (including lots of *Menyanthes trifoliata* and sedges), moss, plant debris, mammal and fish bones, and avian eggshell were present. The washover contained abundant plant debris, and smaller quantities of wood, charcoal, seeds, moss, and insects. It may be significant that this uppermost part of the organic fill of the cistern contained faecal concretions; what had previously perhaps been a water tank had evidently become a repository for waste.

Phase 5A

Context 110 [floor silt]

Sample 37 Moist, (fairly dry), very gritty, brown, silty sand.

A 19 kg sample was bulk-sieved. The residue contained abundant mortar/plaster, chalk and other stones, and clinker. Fish bones, brick/tile fragments, and coal were fairly abundant, with smaller quantities of mammal and bird bone, snails and avian eggshell. The washover was of charcoal and clinker with a small amount of wood and fairly abundant snails. Neither fraction was investigated in detail for plant remains.

The presence of small numbers of freshwater and semi-aquatic snail taxa suggests some input of waterside vegetation, which would have provided a good habitat for colonisers such as *Trichia* spp., *Cochlicopa lubrica* and *Discus rotundatus*.

Context 893 [dump/levelling in N. cloister alley]

Sample 34 Moist, (fairly dry), crumbly, grey-brown silty clay, with bright orange-red burnt clay patches and buff clay patches.

A sample of 18 kg of sediment was bulk-sieved but no further action taken.

Sample 106 Wet, dark grey silt, with brown mottles and brick/tile, chalk, and abundant charcoal inclusions.

A 19 kg sample was bulk-sieved. Only the washover was examined; this yielded traces of two weed taxa with modest amounts of charred wheat, some of which was tentatively identified as bread/club wheat, and charcoal. This is most likely to be from ash incorporated into the make-up.

Sample 111 Moist, mid grey-brown gritty silt.

A sample of 31 kg of sediment was bulk-sieved. Stone (mainly rounded pebbles of chalk and other rocks), root, and brick/tile were abundant in the residue. Mortar/plaster, charcoal, slag, mammal and fish bone, snails and oystershell were present. The washover consisted of charcoal and charred grains. Too few snails were recovered for comment.

Sample 112 Moist, mixed light brown and grey gritty silts.

A sample of 18 kg of sediment was bulk-sieved but there was no further action.

Phase 5B

Context 867 [construction level]

Sample 38 Moist, brown silty clay, with plaster and red mortar.

Bulk-sieving was carried out on 31.5 kg of sediment. Chalk pebbles and mortar were abundant in the residue. Brick/tile, slag, mammal, fish and bird bone, snails, shell and avian eggshell were also present. The washover was mainly charcoal fragments and contained some snails. The small snail assemblage consisted of typical urban taxa. No plant remains other than charcoal were recovered during 'rough-sorting'.

Sample 867 (no description made prior to disaggregation)

A sample of 18 kg of sediment was bulk-sieved. The residue contained brick/tile, stone, slag, wood, charcoal, charred grain, bone and shell.

Context 754 [floor silt - accumulation associated with hearth in friary]

Sample 754 Mid brown, moist, plastic-crumbly, sandy, silty, clay, with chalk pebbles and bone fragments as common inclusions. ?Mortar and ash also present.

Bulk-sieving was carried out on 57.5 kg of sediment. The residue contained brick/tile, stone, coal, iron slag, charcoal, bones, shell and avian eggshell. Many of the bones were stained green (?from copper alloy melt in context 796).

A 5 kg 'test' sub-sample was processed by paraffin flotation in the laboratory. The small flot contained a thrips (Thysanoptera) and an aphid, both of which were modern contaminants, a mallard femur fragment, several earthworm egg capsules, a rotted mite, an unidentifiable beetle fragment and a small snail assemblage (21 individuals). The following species of snail were recorded: *Caecilioides acicula* (15 individuals), two *Carychium* species (probably one each of *C. tridentatum* and *C. minimum*), and single individuals of *Cochlicopa lubrica*, *Discus rotundatus*, *Trichia* cf. *hispida* and *Oxychilus alliarius*. *C. acicula* is a burrowing species and must be assumed to be intrusive. The other species are typical of the urban 'background' fauna, although the *Carychium* species suggest a wet pasture or swamp habitat.

The only plant remains, other than charcoal, were trace amounts of corn gromwell, *Buglossoides arvensis*, a weed of arable land.

Context 796 [floor silt]

Sample 796 (no description prior to processing; excavator describes this as a patch within 754 with much copper alloy melt)

A 5 kg sample of sediment was bulk-sieved. The residue contained brick/tile, stone, iron slag and copper melt, charcoal, bone (some green stained), and shell.

Context 772 [floor silt]

Sample 772 (from excavators' description: darker, ashier facies of 754)

Bulk-sieving was carried out on 70.5 kg of sediment. The residue contained brick/tile fragments, stone, ?slag, charcoal, nutshells, bones, shell, avian eggshell, and a ?coprolite. No plant remains were available for examination.

Context 2009 [floor silt]

Sample 52 Moist, gritty, grey silt.

A sample of 29.5 kg of sediment was bulk-sieved. Brick/tile, mortar/plaster, stone, coke/clinker, coal, and mammal, bird and fish bone were abundant in the residue. The washover was mostly coke/clinker, charcoal and plant fibres. Snails were reasonably abundant, and there was some shell and avian eggshell.

Sample 79 Moist, orange-brown, crumbly silt with abundant chalk grit inclusions, and also brick/tile and charcoal.

A sample of 33 kg of sediment was bulk-sieved. Brick/tile, stone (many rounded pebbles), coke/clinker, mortar/plaster, and mammal, bird and fish bone were abundant. Smaller quantities of coal, slag, burnt daub, snails, shellfish, and avian eggshell were also present. Coke/clinker, plants stems and snails were abundant in the washover, and charcoal and seeds present in smaller amounts.

Sample 86 Wet grey-brown clay silt with abundant chalk grit inclusions.

A 31 kg sample was bulk-sieved but no further action was taken.

Sample 89 Grey-brown clay silt with abundant chalk grit inclusions.

A 27.5 kg sample was bulk-sieved. Stone (mostly chalk), brick/tile, mortar, coke/clinker, and mammal, bird and fish bone were abundant in the residue, with some coal, slag, charcoal, snails, shellfish and avian egg shell. The washover contained abundant coke/clinker and charcoal and snails.

Sample 100 Wet, very heterogeneous dark grey and brown silts with abundant chalk grit inclusions.

A 24 kg sample was bulk-sieved. Coke clinker, brick/tile, mortar/plaster, and stone (chalk), were abundant in the residue. Coal, wood, charcoal, mammal, bird and fish bone, snails, shell, and avian eggshell were also present. The washover was mainly coke/clinker, charcoal and plant stems, and snails were abundant. Two plant taxa were identified (Appendix 1), but in isolation they are of no interpretative significance. It is rather surprising that so much burnt material was present in the sample without identifiable charred plant remains also being recorded.

Sample 101 Wet, soft, brown silt, with charcoal and abundant chalk grit inclusions.

A 28 kg sample of sediment was bulk-sieved. The residue was mainly chalk and other stone (including some pebbles), and brick/tile, mortar/plaster, charcoal, and mammal, bird and fish bone were also abundant. There were smaller quantities of coal, slag, coke/clinker, wood, seeds, rootlets, snails, shellfish (oyster and mussel and other fragments) and avian eggshell. A number of snails were present in the washover. Rough-sorted plant remains were restricted traces of one (weed) taxon.

Sample 149 (no description made prior to processing)

A 28 kg sample of sediment was bulk-sieved; no further action was taken, however.

Sample 92009 Mid grey-brown, moist, plastic-crumbly, slightly sandy, silty clay, with some bone and mortar fragments.

An estimated 30 kg of sediment was bulk-sieved but not examined further.

A 1 kg 'test' subsample was processed by paraffin flotation. A worm capsule and an unidentifiable beetle fragment were present in the flot. There was also modern fly contamination. Plant remains were restricted to two weed taxa, though there was a range of evidence for occupation debris in the residue. A 6 g subsample was examined for parasite ova but none were found.

The snails from context 2009

The five snail assemblages from this context were very similar, and gave an intriguing mixture of taxa. A synanthropic element such as might live in and around a stone building includes *Trichia* spp., *Discus rotundatus*, and *Oxychilus alliarius*. In addition, there was also an obvious freshwater component (*Theodoxus fluviatilis*, *Valvata piscinalis*, *Bithynia tentaculata*, *Aplexa hypnorum*, *Lymnaea* spp., *Anisus leucostoma*, *Planorbarius corneus*, *Oxyloma pfeifferi*), comprising taxa which are typical of a range of conditions from flowing water to muddy pond margins. There was also a grassland association (*Vallonia* spp., *Pupilla muscorum*, *Vertigo pygmaea*), the presence of *Vallonia costata* suggesting dryish, turfey grassland. If this deposit truly accumulated during the use of the North Range, and is not merely a dump of mixed origins, then it seems likely that the mollusca came into the deposit with vegetation brought in for fuel or floor covering. If so, then two main sources are indicated: a swampy marsh such as might be cut for reeds, and drier, tussocky grassland, perhaps used as a source of hay.

Context 2046 [floor silt]

Sample 81 Wet, grey-brown very heterogeneous silt, with abundant orange-brown silt and chalk grit inclusions.

The weight of the bulk-sieved sample was not recorded. Stone (mainly chalk and including some water-worn pebbles) was the main component of the residue. Mammal and fish bone were also abundant. Brick/tile fragments, mortar/plaster, charcoal, snails, shellfish and avian eggshell were present in smaller amounts. Snails were also present in the washover but these were not available for examination.

Context 2053 [patching]

Sample 88 Moist, dark grey, brown and orange heterogeneous silty clays (?burnt).

An 11 kg sample of sediment was bulk-sieved. The residue contained abundant stone (mostly chalk), brick/tile, mortar/plaster, coke/clinker, and burnt clay, with small quantities of coal, mammal and fish bone, snails and shellfish. The washover was mainly coke/clinker and charcoal with some snails; plant remains were not recorded during rough-sorting.

The snail assemblage was very much like those from context 2009.

Context 2054 [floor silt ash]

Sample 96 Moist, gritty, brown silt with orange-red (?burnt) clay inclusions.

A 10 kg sample was bulk-sieved. Brick/tile, stone (mostly chalk), coal, clinker/coke, and charcoal were abundant in the residue. Smaller amounts of mortar/plaster, rootlets, bone, snails, shellfish and avian eggshell were also present. The washover was mostly charcoal with some snails.

Again, the snail assemblage was very much like those from context 2009.

Phase 5C

Context 3092 [floor silt]

Sample 80 Moist, light grey-brown silty sand with abundant chalk grit inclusions.

A 30 kg sample was bulk-sieved. Mortar/plaster, chalk and other stone, coal, and coke/clinker were abundant in the residue, with smaller quantities of brick/tile, charcoal, mammal, bird and fish bone, snails, oyster and mussel shell fragments, and avian eggshell. The washover was mainly clinker and charcoal. Snails were plentiful and a few fragments of mammal and fish bone were present.

The snail assemblage from this sample was dominated by *Trichia* spp., with taxa such as *Lauria cylindracea* and *Oxychilus cellarius* suggesting a habitat analogous to a damp stone wall. A dump of material containing brick, stone and clinker in a damp, probably abandoned, stone building might well have accumulated such a death assemblage.

Context 3051 [floor silt]

Sample 53 Dry, brown silt - like very fine sand, loose, only very slightly damp.

A sample of 15 kg of sediment was bulk-sieved. Mortar/plaster and stone (mainly chalk) were the major components in the residue. There were smaller amounts of brick/tile, coal, coke/clinker, slag, charcoal, mammal and fish bone, snails, shellfish and avian

eggshell. The washover was mainly charcoal and contained snails.

Sample 95 Moist, light brown sandy silt with chalk grit inclusions.

A sample of 27 kg of sediment was bulk-sieved. Brick/tile, mortar/plaster, chalk and other stone, and coal. Fish bone was also plentiful. Glass, slag, mammal and bird bone, snails, oyster shell and avian eggshell were also present. The washover was mainly clinker and charcoal, and some snails were present.

The snails from context 3051

Samples 53 and 95 gave samples dominated by *Trichia cf. plebeia*, with small numbers of *Discus rotundatus*. This would indicate a short-lived, rather damp habitat, liable to disturbance.

Context 3111 [floor silt]

Sample 56 Dry brown silt.

Bulk-sieving was carried out on 5.5 kg of sediment, but no further action taken.

Sample 84 Moist reddish-brown silt with chalk gravel inclusions.

A sample of 6 kg of sediment was bulk-sieved; the washover yielded trace amounts of blackberry (*Rubus fruticosus* agg.) seeds and modest amounts of charcoal and snails, with some coal and fish bone.

Sample 91 Wet, light orange-brown, sticky silt with abundant chalk grit inclusions.

A 21 kg sample was bulk-sieved but no further analyses made.

Context 3052 [floor silt]

Sample 130 Moist, grey-brown silt with abundant chalk grit inclusions.

A sample of 32 kg was bulk-sieved. Brick/tile, chalk stones, mortar/plaster, coal and charcoal were all abundant in the residue. Slag, mammal and fish bone, snails, fragments of oyster and mussel shell, and avian eggshell were present in small quantities. No washover was collected.

Context 3064 [floor silt]

Sample 82 Moist heterogeneous orange-brown silt with abundant chalk grit inclusions.

Bulk-sieving was carried out on 7 kg of sediment, but no further action taken.

Context 3010 [floor silt]

Sample 94 Moist, brown and grey-brown very heterogeneous silts, with abundant chalk gravel inclusions.

Bulk-sieving was carried out on 21kg of sediment. The residue was mainly chalk and mortar/plaster. Some brick/tile, coal, clinker, charcoal, mammal, fish and bird bone, snails, shellfish and avian eggshell were also present. The washover was mostly clinker and charcoal, but snails were also present.

The snail assemblage was of typical urban taxa.

Context 3020 [floor silt]

Sample 93 Moist, light brown silt with abundant chalk grit inclusions.

An 11 kg sample was bulk-sieved. Stone (mainly chalk), brick/tile, mortar/plaster, clinker/coke were most abundant in the residue, and fish bone was also well represented. There were smaller quantities of mammal bone, coal, snails, shellfish, avian eggshell, and a fossil. The washover was mainly coke/clinker. The snail assemblage was too small for comment.

Contexts not located in excavation report:

Context 3006 [floor silt]

Sample 85 Moist, light grey-brown silt with abundant chalk grit inclusions.

A 12 kg sample was bulk-sieved. The residue consisted chiefly of brick/tile, mortar/plaster, stone, and charcoal. Fish bone was also plentiful. Smaller quantities of slag, mammal bone, and snails were present. The washover from the bulk-sieving was mainly charcoal with fairly abundant snails, some shellfish fragments, and avian eggshell.

The snail assemblage was small, and dominated by *Trichia cf. plebeia*.

Context 3053 [floor silt]

Sample 98 Wet, heterogeneous, brownish-red and light brown silts with abundant chalk grit inclusions.

A sample of 35 kg of sediment was bulk-sieved. The washover yielded traces of several weed species, charred barley, and blackberry. There were more snails.

Phase 6A

Context 944 [floor silt]

Sample 35 Wet, gritty, brown silt.

Bulk-sieving was carried out on 26.5 kg of sediment. Brick/tile, mortar/plaster, stone (mainly chalk), clinker, and mammal bone were abundant in the residue, with smaller quantities of coal, fish and bird bone, snails, shellfish and avian eggshell. Clinker and charcoal were the principal components of the washover, and snails were fairly abundant.

Discus rotundatus and *Trichia cf. plebeia* were much the most abundant of the snails, with other taxa similarly indicative of damp conditions.

Phase 7

Context 1092 [conduit fill]

Sample 43 Wet, dark reddish-brown silty sand, with abundant tile, chalk, and brick rubble inclusions. Rather smelly.

Bulk-sieving was carried out on 28.5kg of sediment but there was no further analysis.

Sample 117 Wet, mid-dark reddish brown silty chalk grit.

A sample of 23 kg was bulk-sieved. The washover yielded traces of hemlock fruits and seed fragments of *Sambucus*, probably elderberry. They offer no evidence about the nature of the deposit.

Context 1093 [conduit fill]

Sample 44 Wet brown sand with abundant chalk and tile.

A sample of 28 kg was bulk-sieved but not analysed further.

Sample 133 (not described prior to disaggregation; excavators' description is 'sand and rubble')

A 37 kg sample was bulk-sieved and the washover yielded quite a large list of taxa, including traces of hempseed and moderate numbers of fig and elderberry seeds and a range of taxa including weeds, plants of scrub/hedgerow (including buds and/or scales of several trees and leaf epidermis fragments of holly, *Ilex aquifolium*), and moderate numbers of leaves of the bog moss, *Sphagnum imbricatum* - a species typical of raised-bog peats (see above). Remains of woody plants are often an indication of deposition in a ditch under or near a hedge or area of scrub, though it is possible that the material in this context is secondarily derived from imported material like brushwood.

Context 1094 [conduit fill]

Sample 138 (not described prior to disaggregation; excavators' description: 'loose sand')

A sample of 22 kg of sediment was bulk-sieved. The residue was mainly chalk and brick/tile, with smaller quantities of mortar/plaster, coal, slag, mammal bone, mussel and oyster shell, and avian eggshell. Wood, charcoal, hazelnut shells, stones of *Prunus spinosa*, fish bone, leather, and snails were represented by a few fragments. Plant remains examined from the washover and the rough-sorted residue included woody taxa (as in 133), fig and several weeds. The presence of the pondweed, *Potamogeton* sp(p), in isolation is probably not good evidence for standing or slow-moving water in the conduit; the fig seeds might be domestic waste (?faecal), though there is no supporting evidence for this.

Phase 8

Context 3110 [floor silt]

Sample 55 Moist grey silt.

Bulk-sieving was carried out on 15.5 kg of sediment. Chalk and other stones, brick/tile, coke/clinker, and mortar/plaster made up the bulk of the residue. A few fragments of coal, burnt daub, mammal and fish bone, snails, shell, avian eggshell, and mica were also present. The washover from the bulk-sieving consisted mainly of coke/clinker but some snails were present.

Sample 102 Compact, mid-dark brown silty clay, with chalk grit, charcoal and brick/tile inclusions.

A sample of 19 kg of sediment was bulk-sieved. Chalk and other stone, brick/tile and coke/clinker were abundant in the residue. Mortar/plaster was also plentiful. Fragments of coal, slag, bone, snails, shell and a fossil were present. The washover was mainly coke/clinker and snails were fairly abundant.

The snail assemblages from Context 3110

Samples 55 and 102 gave snail assemblages of low diversity, with *Oxychilus alliarius* particularly common. This facultative carnivore is often abundant in 'midden' deposits into which quantities of bone and shell have been incorporated.

Context 3066 [floor silt]

Sample 131 (not described prior to processing; excavators' description: 'silt')

A sample of 12 kg of sediment was bulk-sieved but not examined further.

Context 3055 [pit fill]

Sample 54 Moist, reddish brown silt with tile fragments.

A sample of 7 kg of sediment was bulk-sieved; the small washover contained only scraps of charred organic material (not charcoal) and snails.

Sample 90 Moist, soft, silt, externally reddish brown, internally grey-brown, with abundant chalk grit inclusions.

Bulk-sieving was carried out on 18.5 kg of sediment. There was no further action.

Acknowledgements

The authors would like to acknowledge the assistance of the excavator of this site, Martin Foreman (Humberside Archaeological Unit) for information about the deposits and their archaeological setting. Roberta Gilchrist (Department of Archaeology, University of York) gave invaluable assistance.

References

- Beer, R. J. S. (1976). The relationship between *Trichuris trichiura* (Linnaeus 1758) of man and *Trichuris suis* (Schrunk 1788) of pig. *Research in Veterinary Science* **20**, 47-54.
- Fisher, R. A., Corbet, A. S. and Williams, C. B. (1943). The relationship between the number of species and the number of individuals in a random sample of an animal population. *Journal of Animal Ecology* **12**, 42-58.
- Hall, A. R., Jones, A. K. G. and Kenward, H. K. (1983). 'Cereal bran and human faecal remains - some preliminary observations', pp. 85-104 in Proudfoot, B. (ed.) Site, environment and economy. *Symposia of the Association for Environmental Archaeology* **3**, *British Archaeological Reports International Series* **173**.
- Hall, A. R. and Kenward, H. K. (forthcoming). Environmental evidence from the Colonia: General Accident and Rougier Street. *Archaeology of York* **14**(6). London: Council for British Archaeology.
- Kenward, H. K., Hall, A. R. and Jones, A. K. G. (1980). A tested set of techniques for the extraction of plant and animal microfossils from waterlogged archaeological deposits. *Science and Archaeology* **22**, 3-15.
- Kenward, H. K., Hall, A. R. and Jones, A. K. G. (1986). Environmental evidence from a Roman well and Anglian pits in the legionary fortress. *Archaeology of York* **14**(5), 241-288.

London: Council for British Archaeology.

Kerney, M. P. (1976). *Atlas of the non-marine molluscs of the British Isles*. Cambridge: Institute of Terrestrial Ecology.

Kloet, G. S. and Hincks, W. D. (1964-77). *A checklist of British Insects* (2 ed.). London: Royal Entomological Society.

McKenna, W. J. B. (n.d.) 'The environmental evidence from excavations at Eastgate, Beverley, North Humberside in 1984'. Unpublished report submitted to Humberside Archaeological Unit.

Ministry of Agriculture, Fisheries and Food (1977). Manual of veterinary parasitological laboratory techniques. *MAFF Technical Bulletin 18*. London: HMSO.

Smith, A. J. E. (1978) *The moss flora of Britain and Ireland*. Cambridge: University Press.

Tutin, T. G. *et al.* (1964-80) *Flora Europaea 1-5*. Cambridge: University Press

Table 1. List of samples from excavations at the Dominican Friary, Beverley in phase, context and sample order. Key: BSW - bulk-sample washed; RSS - raw sediment examined in EAU; NFA - no further action; TSW - 'test' sample washed. The order does not exactly follow that used in the text of this report.

Phase 1

Context	Sample	BSW	RSS	NFA	TSW
925					
	39	X			
1149					
	48	X			
	116	X			
1184					
	143	X			
	91184	X	X	X	
1186					
	87	X			
1195					
	145	X			
	91195	X	X	X	
1209					
	97	X			
1210					
	50	X			
	109	X			
	147	X			
	91210	X	X		T
1212					
	7	X			
	22	X			
	23	X			
	76	X			
	99	X			
1214					
	51	X			
	148	X			
	91214	X	X		T
1215					
	126	X			
1216					
	83	X			

Phase 2

Context	Sample	BSW	RSS	NFA	TSW
924	1	X			
	24	X			
	25	X			
	26	X			
	27	X			
	28	X			
	57	X			
	58	X			

Context	Sample	BSW	RSS	NFA	TSW
957	36	X			

Context	Sample	BSW	RSS	NFA	TSW
958	2	X			
	29	X			
	30	X			
	31	X			
	32	X			
	33	X			
	59	X			
	60	X			
	61	X			
	62	X			
	63	X			
	64	X			
	103	X			
	115	X			

Context	Sample	BSW	RSS	NFA	TSW
959	3	X			
	4	X			
	8	X			
	9	X			
	10	X			
	11	X			
	65	X			
	66	X			
	67	X			
	68	X			
	69	X			
	70	X			
	71	X			
	72	X			
	73	X			
	74	X			
	107	X			
	108	X			
	114	X			

Context	Sample	BSW	RSS	NFA	TSW
1121	46	X			

Context	Sample	BSW	RSS	NFA	TSW
1146	47	X			
	125				
	142	X			

	91146	X	X	X	
Context	Sample 1188	BSW	RSS	NFA	TSW
	5	X			
	12	X			
	13	X			
	14	X			
	15	X			
	16	X			
	75	X			
	77	X			
	92	X			
	105	X			
	110	X			
	144	X			
	91188	X	X		T

Context	Sample 1206	BSW	RSS	NFA	TSW
	49	X			
	78	X			
	146	X			
	91206	X	X	X	

Trench 2

Context	Sample 163	BSW	RSS	NFA	TSW
	163		X		T
Context	Sample 164	BSW	RSS	NFA	TSW
	164		X		T
Context	Sample 165	BSW	RSS	NFA	TSW
	165		X	X	
Context	Sample 166	BSW	RSS	NFA	TSW
	136	X		X	
Context	Sample 167	BSW	RSS	NFA	TSW
	167		X		T
Context	Sample 169	BSW	RSS	NFA	TSW
	127	X			
Context	Sample 185	BSW	RSS	NFA	TSW
	185		X		T
Context	Sample 197	BSW	RSS	NFA	TSW
	197		X	X	
Context	Sample 198	BSW	RSS	NFA	TSW
	198		X	X	
	Sample	BSW	RSS	NFA	TSW

Context	199		X	X		
	199					
	Sample	BSW	RSS	NFA	TSW	
Context	208					
	208		X	X		
	Sample	BSW	RSS	NFA	TSW	
Context	209					
	209		X	X		
	Sample	BSW	RSS	NFA	TSW	
Context	213					
	213		X	X		
	Sample	BSW	RSS	NFA	TSW	
Context	215					
	137	X				
	Sample	BSW	RSS	NFA	TSW	
Context	223					
	139	X				
	Sample	BSW	RSS	NFA	TSW	
Context	225					
	134	X	X		T	
	225		X	X		
	Sample	BSW	RSS	NFA	TSW	
Context	229					
	229		X		T	
	Sample	BSW	RSS	NFA	TSW	
Context	231					
	124	X				

Phase 3A

	Sample	BSW	RSS	NFA	TSW	
Context	961					
	104	X				
	Sample	BSW	RSS	NFA	TSW	
Context	1047					
	123	X				
	Sample	BSW	RSS	NFA	TSW	
Context	1048					
	41	X				
	Sample	BSW	RSS	NFA	TSW	
Context	1074					
	42	X				
	118	X				

Phase 3B

	Sample	BSW	RSS	NFA	TSW	
Context	953					
	113	X				
	Sample	BSW	RSS	NFA	TSW	
Context	994					
	121	X	X		T	

Phase 3C

Context	Sample	BSW	RSS	NFA	TSW
621	621	X			
807	122	X			
1043	40	X			
	119	X			
	141	X			
	91043	X			
1078	135	X			

Phase 4

Context	Sample	BSW	RSS	NFA	TSW
1095	129	X			
1106	6	X			
	17	X			
	18	X			
	19	X			
	20	X			
	21	X			
	120	X	X		T
	140	X			
1107	132	X			
1109	45	X			

Phase 5A

Context	Sample	BSW	RSS	NFA	TSW
110	37	X			
893	34	X			
	106	X			
	111	X			
	112	X			

Phase 5B

Context	Sample	BSW	RSS	NFA	TSW
754	754	X	X		T

Context	Sample 772	BSW	RSS	NFA	TSW
	772	X			

Context	Sample 796	BSW	RSS	NFA	TSW
	796	X			

Context	Sample 867	BSW	RSS	NFA	TSW
	38	X			
	867	X			

Context	Sample 2009	BSW	RSS	NFA	TSW
	52	X			
	79	X			
	86	X			
	89	X			
	100	X			
	101	X			
	149	X			
	92009	X	X		T

Context	Sample 2046	BSW	RSS	NFA	TSW
	81	X			

Context	Sample 2053	BSW	RSS	NFA	TSW
	88	X			

Context	Sample 2054	BSW	RSS	NFA	TSW
	96	X			

Phase 5C

Context	Sample 3006	BSW	RSS	NFA	TSW
	85	X			

Context	Sample 3010	BSW	RSS	NFA	TSW
	94	X			

Context	Sample 3020	BSW	RSS	NFA	TSW
	93	X			

Context	Sample 3051	BSW	RSS	NFA	TSW
	53	X			
	95	X			

Context	Sample 3052	BSW	RSS	NFA	TSW
	130	X			

Context	Sample 3053	BSW	RSS	NFA	TSW
	98	X			

	Sample	BSW	RSS	NFA	TSW
--	--------	-----	-----	-----	-----

Context 3064	82	X				
Context 3092	Sample 80	BSW X	RSS	NFA	TSW	
Context 3111	Sample 56 84 91	BSW X X X	RSS	NFA	TSW	
Phase 6A						
Context 944	Sample 35	BSW X	RSS	NFA	TSW	
Phase 7						
Context 1092	Sample 43 117	BSW X X	RSS	NFA	TSW	
Context 1093	Sample 44 133	BSW X X	RSS	NFA	TSW	
Context 1094	Sample 138	BSW X	RSS	NFA	TSW	
Phase 8						
Context 3055	Sample 54 90	BSW X X	RSS	NFA	TSW	
Context 3066	Sample 131	BSW X	RSS	NFA	TSW	
Context 3110	Sample 55 102	BSW X X	RSS	NFA	TSW	

Table 2. Complete list of plant and invertebrate taxa from excavations at the Dominican Friary, Beverley, in taxonomic order. Plants follow Smith, (1978) and Tutin *et al.*, (1964-80), insects follow Kloet and Hincks (1964-77) and non-marine molluscs follow Kerney (1976). Note that 'indet.' indicates records which may include taxa already listed.

ALGAE

Chara sp(p).

MUSCI

Sphagnum sp(p).
S. imbricatum Hornsch. ex Russ.
Bryum capillare Hedw.
Plagiomnium cf. *affine* (Funck.) Kop.
Plagiomnium sp(p).
Antitrichia curtispindula (Hedw.) Brid.
Neckera complanata (Hedw.) Hub.
Thuidium tamariscinum (Hedw.) Br. Eur.
Cratoneuron filicinum (Hedw.) Spruce
Cratoneuron commutatum (Hedw.) Roth
Campylium stellatum (Hedw.) Lange & Jens.
 cf. *C. elodes* (Lindb.) Kindb.
Drepanocladus sp(p).
Scorpidium scorpioides (Hedw.) Limpr.
Calliergon giganteum (Schimp.) Kindb.
C. cuspidatum (Hedw.) Kindb.
Isoetecium myosuroides Brid.
Homalothecium sericeum/lutescens
 cf. *Brachythecium* sp(p).
Pseudoscleropodium purum (Hedw.) Fleisch
Eurhynchium striatum (Hedw.) Schimp.
Hypnum cupressiforme Hedw.
 cf. *Rhytidiadelphus triquetrus* (Hedw.) Warnst.
R. squarrosus (Hedw.) Warnst.

PTERIDOPHYTA

Filicales (fern)
Pteridium aquilinum (L.) Kuhn (bracken)

ANGIOSPERMAE

Salix sp(p). (willow)
Populus sp(p). (poplar/aspen)
Myrica gale L. (bog myrtle/sweet gale)
Betula sp(p). (birch)
B. cf. pendula Roth. (?silver birch)
Corylus avellana L. (hazel)
Quercus sp(p). (oak)
Ficus carica L. (fig)
Cannabis sativa L. (hemp)
Urtica dioica L. (stinging nettle)
U. urens L. (annual nettle)
Polygonum aviculare agg. (knotgrass)
P. hydropiper L. (water-pepper)
P. persicaria L. (persicaria/red shank)
P. lapathifolium L. (pale persicaria)
Bilderdykia convolvulus (L.) Dumort. (black bindweed)
Rumex acetosella agg. (sheep's sorrel)
Rumex sp(p). (docks)
Chenopodium Section *Pseudoblitum* (red goosefoot etc.)
C. polyspermum L. (all-seed)
C. album L. (fat hen)
Atriplex sp(p). (oraches)
Arenaria serpyllifolia L. (thyme-leaved sandwort)

Moehringia trinervia (L.) Clairv. (three-nerved sandwort)
Stellaria media (L.) Vill. (chickweed)
S. cf. neglecta Weihe in Bluff & Fingerh. (?greater chickweed)
S. graminea L. (lesser stitchwort)
Cerastium sp(p). (mouse-ear chickweeds)
Scleranthus annuus L. (annual knawel)
Spergula arvensis L. (corn spurrey)
Lychnis flos-cuculi L. (ragged robin)
Agrostemma githago L. (corncockle)
Silene vulgaris (Moench) Garcke (bladder campion)
S. vulgaris ssp. *maritima* (With.) A. & D. Löve (sea campion)
S. alba (Miller) Krause in Sturm (white campion)
Caltha palustris L. (marsh marigold)
Ranunculus Section *Ranunculus*
 (meadow/creeping/bulbous buttercup)
R. sardous Crantz (hairy buttercup)
R. sceleratus L. (celery-leaved crowfoot)
R. flammula L. (lesser spearwort)
R. cf. lingua L. (?greater spearwort)
R. Subgenus *Batrachium* (water crowfoots)
Ranunculus sp(p). (buttercups, etc.)
Thalictrum flavum L. (common meadow rue)
Papaver somniferum L. (opium poppy)
P. dubium L. (long-headed poppy)
P. argemone L. (long prickly-headed poppy)
Papaver sp(p). (poppies)
Fumaria sp(p). (fumitories)
Isatis tinctoria L. (woad)
Rorippa islandica (Oeder) Borbàs (northern marsh yellow-cress)
Brassica rapa L. (turnip)
B. cf. nigra (L.) Koch in Röhling (?black mustard)
Brassica sp./*Sinapis arvensis* (brassica/charlock)
Brassica sp(p). (cabbages, etc.)
 cf. *Sinapis arvensis* L. (?charlock)
Raphanus raphanistrum L. (wild radish)
Reseda luteola L. (weld/dyer's rocket)
Filipendula ulmaria (L.) Maxim. (meadowsweet)
Rubus idaeus L. (raspberry)
R. fruticosus agg. (blackberry/bramble)
R. cf. caesius L. (?dewberry)
Rubus/Rosa sp(p). (blackberry, etc./rose)
Rosa sp(p). (roses)
Potentilla palustris (L.) Scop. (marsh cinquefoil)
P. anserina L. (silverweed)
P. cf. erecta (L.) Rauschel (?tormentil)
P. cf. reptans L. (?creeping cinquefoil)
Fragaria vesca L. (wild strawberry)
Malus sylvestris Miller (crab apple)
Crataegus monogyna Jacq. (hawthorn)
Prunus spinosa L. (sloe)
P. domestica ssp. *domestica* (plums, etc.)
P. Section *Cerasus* (cherries)
Prunus sp(p). (sloe/plum/cherry, etc.)
 Leguminosae (pea family)
Genista tinctoria L. (dyer's greenweed)
Vicia hirsuta (L.) S. F. Gray (hairy tare)
V. faba L. (field bean)
Vicia sp(p). (vetches, etc.)
 cf. *Pisum* sp(p). (?peas)
 cf. *P. sativum* L. (?garden/field pea)
Medicago lupulina L. (black medick)
Linum usitatissimum L. (cultivated flax)

L. catharticum L. (purging flax)
Euphorbia helioscopia L. (sun spurge)
E. peplus L. (petty spurge)
Ilex aquifolium L. (holly)
Viola sp(p). (violets/pansies, etc.)
 Umbelliferae (carrot family)
Hydrocotyle vulgaris L. (marsh pennywort)
Anthriscus sylvestris (L.) Hoffm. (cow parsley)
A. caucalis Bieb. (bur chervil)
Scandix pecten-veneris L. (shepherd's needle)
Berula erecta (Hudson) Coville (narrow-leaved water-parsnip)
Oenanthe lachenalii C. G. Gmelin (parsley water-dropwort)
 cf. *Oe. aquatica* (L.) Poiret in Lam. (?fine-leaved water-dropwort)
Oenanthe sp(p). (water-dropworts)
Aethusa cynapium L. (fool's parsley)
Conium maculatum L. (hemlock)
Apium graveolens L. (wild celery)
A. nodiflorum (L.) Lag. (fool's watercress)
Peucedanum ostruthium (L.) Koch (master-wort)
 cf. *Daucus carota* L. (?wild carrot)
Menyanthes trifoliata L. (bogbean)
Galium aparine L. (goosegrass, cleavers)
Galium sp(p). (bedstraws, etc.)
Rubia tinctorum L. (dyer's madder)
Buglossoides arvensis (L.) I. M. Johnston (corn gromwell)
Marrubium vulgare L. (white horehound)
Galeopsis Subgenus *Ladanum* (hemp-nettles)
G. Subgenus *Galeopsis* (hemp-nettles)
Lamium Section *Lamiopsis* (annual dead-nettles)
Stachys cf. *sylvatica* L. (?hedge woundwort)
 S. cf. *arvensis* (L.) L. (?field woundwort)
Stachys sp(p). (woundworts)
Nepeta cataria L. (cat-mint)
Prunella vulgaris L. (selfheal)
Lycopus europaeus L. (gipsywort)
Mentha sp(p). (mints)
Hyoscyamus niger L. (henbane)
Solanum nigrum L. (black nightshade)
S. dulcamara L. (woody nightshade)
Pedicularis palustris L. (marsh lousewort)
Rhinanthus sp(p). (yellow rattles)
Sambucus cf. *ebulus* L. (?danewort)
S. nigra L. (elder)
Sambucus sp(p). (elder, etc.)
Valerianella dentata (L.) Pollich (narrow-fruited cornsalad)
Valerianella sp(p). (cornsalads)
Dipsacus sativus (L.) Honckeney (fuller's teasel)
D. sativus/fullonum (fuller's/wild teasel)
 D. cf. *fullonum* L. (?wild teasel)
Dipsacus sp(p). (teasels)
Anthemis cotula L. (stinking mayweed)
Achillea millefolium L. (yarrow)
Chrysanthemum segetum L. (corn marigold)
Senecio sp(p). (grounsels/ragworts, etc.)
Arctium sp(p). (burdocks)
Carduus/Cirsium sp(p). (thistles)
Centaurea sp(p). (knapweeds, etc.)
Hypochoeris sp(p). (cat's ears)
Leontodon sp(p). (hawkbits)
 cf. *Picris hieracioides* L. (?hawkweed ox-tongue)
Sonchus asper (L.) Hill (prickly sow-thistle)
S. oleraceus L. (sow-thistle)
S. arvensis L. (corn sow-thistle)
Taraxacum sp(p). (dandelions)
Lapsana communis L. (nipplewort)
Alisma sp(p). (water-plantains)
Triglochin maritima L. (sea arrowgrass)
Potamogeton sp(p). (pondweeds)

Juncus inflexus/effusus/conglomeratus
 (hard/soft/compact rush)
J. gerardi Loisel. (saltmarsh rush)
J. bufonius L. (toad rush)
J. cf. acutiflorus Ehrh. ex Hoffm. (?sharp-flowered rush)
J. cf. articulatus L. (?jointed rush)
Juncus sp(p). (rushes)
Luzula sp(p). (woodrushes)
 Gramineae (grasses)
 Gramineae/Cerealia (grasses/cereals)
 Cerealia indet. (cereals)
 cf. *Poa annua* L. (?annual meadow-grass)
Glyceria sp(p). (sweet-grasses)
Triticum aestivo-compactum (bread/club wheat)
Triticum sp(p). (wheats)
Triticum/Secale (wheat/rye)
Triticum/Hordeum sp(p). (wheat and/or barley)
 cf. *Secale cereale* L. (?rye)
Hordeum sp(p). (barley)
Avena fatua L. (wild oat)
A. sativa L. (cultivated oat)
Avena sp(p). (oats)
 cf. *Alopecurus* sp(p). (?foxtails)
Danthonia decumbens (L.) DC. in Lam. & DC. (heath grass)
 Cyperaceae (sedge family)
Scirpus maritimus/lacustris (sea club-rush/bulrush)
Scirpus lacustris sl (bulrush)
Eleocharis palustris sl (common spike-rush)
Cladium mariscus (L.) Pohl (great sedge/saw-sedge)
Schoenus nigricans L. (bog-rush)
Carex sp(p). (sedges)

NEMATODA

Ascaris sp(p).
Trichuris trichiura (L.)
Trichuris sp(p). indet.

ANNELIDA

Oligochaeta sp. (egg capsule)

CRUSTACEA

Daphnia sp. (ephippium)
Ceriodaphnia sp. (ephippium)
Cladocera sp. indet.

OSTRACODA

Ostracoda sp.

INSECTA

DERMAPTERA

Dermaptera sp.
 MALLOPHAGA

Trichodectidae sp.

SIPHUNCULATA

Siphunculata sp.

MALLOPHAGA OR SIPHUNCULATA

Louse (s.l.) sp.

THYSANOPTERA

Thysanoptera sp.

HEMIPTERA

Lygaeidae sp.
Anthocoris sp.
Lyctocoris campestris (Fabricius)
 Miridae sp.
 ?*Saldula* sp.
 Heteroptera sp.
 Heteroptera sp. (nymph)
Auchenorhyncha spp.
Trioza urticae (Linnaeus)
 Aphidoidea sp.
 Coccoidea sp.
 Hemiptera sp. (nymph)

TRICHOPTERA

Trichoptera sp.

COLEOPTERA

Loricera pilicornis (Fabricius)
Trechus obtusus Erichson or *quadristriatus* (Schrank)

Bembidion lampros (Herbst)
Bembidion spp.
Pterostichus sp.
 Carabidae spp.
 Hydroporinae sp.
 Colymbetinae sp.
Anacaena sp.
Helophorus spp.
Sphaeridium bipustulatum Fabricius
Cercyon analis (Paykull)
C. atricapillus (Marsham)
C. haemorrhoidalis (Fabricius)
C. ?quisquilius (Linnaeus)
C. terminatus (Marsham)
C. ustulatus (Preyssl)
Cercyon sp. indet.
Cryptopleurum minutum (Fabricius)
Hydrobius fuscipes (Linnaeus)
Chaetarthria seminulum (Herbst)
 Hydrophilinae sp.
 Histerinae sp.
 Histeridae sp. indet.
Ochthebius minimus (Fabricius)
Ochthebius sp. indet.
Ptenidium sp.
Acrotichis spp.
Silpha atrata Linnaeus
Scydmaenus tarsatus Muller and Kunze
Micropeplus fulvus Erichson
Micropeplus sp. indet.
Olophrum sp.
Lesteva longolytrata (Goeze)
Lesteva sp. indet.
Dropephylla sp.
Omalium excavatum Stephens
O. caesum Gravenhorst or *italicum* Bernhauer
O. ?rivulare (Paykull)
Omalium spp. indet.
Xylodromus concinnus (Marsham)
Xylodromus sp. indet.
 Omaliinae sp.
Carpelimus bilineatus Stephens
C. ?corticinus (Gravenhorst)
C. elongatus (Erichson)
C. fuliginosus (Gravenhorst)

C. pusillus (Gravenhorst)
Carpelimus sp. indet.
Aploderus caelatus (Gravenhorst)
Platystethus arenarius (Fourcroy)
P. degener Mulsant and Rey
P. nitens (Sahlberg)
Anotylus complanatus (Erichson)
A. nitidulus (Gravenhorst)
A. rugosus (Fabricius)
A. sculpturatus (Gravenhorst) group
A. tetracaratus (Block)
Anotylus sp. indet.
Oxytelus sculptus Gravenhorst
Stenus spp.
Lathrobium sp.
 Paederinae sp.
Leptacinus sp.
Phacophallus parumpunctatus (Gyllenhal)
Gyrophynus angustatus Stephens
G. fracticornis (Muller)
 ?*Xantholinus* sp.
Neobisnius sp.
Philonthus spp.
Philonthus or *Gabrius* sp.
 Staphylininae spp. indet.
Tachyporus sp.
Tachinus laticollis Gravenhorst or *marginellus* (Fabricius)
Cilea silphoides (Linnaeus)
 ?*Cordalia obscura* (Gravenhorst)
Falagria caesa Erichson or *sulcatula* (Gravenhorst)
Falagria or *Cordalia* sp. indet.
 Aleocharinae spp.
 Pselaphidae sp.
Aphodius spp.
Oxyomus sylvestris (Scopoli)
 ?*Phyllopertha horticola* (Linnaeus)
Clambus sp.
Cyphon sp.
 Elateridae sp.
Anobium punctatum (Degeer)
Tipnus unicolor (Piller and Mitterpacher)
Ptinus fur (Linnaeus)
 Ptinidae sp. indet.
Lyctus linearis (Goeze)
Brachypterus sp.
Monotoma longicollis (Gyllenhal)
M. picipes Herbst
Monotoma sp. indet.
Cryptophagus acutangulus (Gyllenhal)
C. scutellatus Newman
Cryptophagus spp.
Atomaria sp.
Ephistemus globulus (Paykull)
Corylophus cassidoides (Marsham)
Orthoperus sp.
Mycetaea hirta (Marsham)
Lathridius minutus (Linnaeus) group
Enicmus sp.
Dienerella sp.
Corticaria ?punctulata Marsham
Corticaria spp.
 Lathridiidae sp. indet.
Typhaea stercorea (Linnaeus)
Aglenus brunneus (Gyllenhal)
 ?*Blaps* sp.
Anthicus formicarius (Goeze)
A. formicarius or *floralis* (Linnaeus)
Gracilia minuta (Fabricius)
 Cerambycidae sp.
Bruchus ?rufimanus Boheman
 Donaciinae sp.
Phyllotreta nemorum (Linnaeus) group

Phyllotreta sp.
Halticinae spp.
Chrysomelidae sp.
Apion (*Taenapion*) *urticarium* (Herbst)
Apion spp.
Sitona lineatus (Linnaeus)
Sitophilus granarius (Linnaeus)
Bagous sp.
Notaris aethiops (Fabricius)
Ceutorhynchus contractus (Marsham)
Ceutorhynchus spp.
Rhinoncus sp.
Rhynchaenus foliorum (Müller)
Curculionidae sp. indet.
Coleoptera spp.

HYMENOPTERA

Proctotrupeidea sp.
Hymenoptera Parasitica sp.

DIPTERA

Bibionidae sp.
Syrphidae sp. (larval spiracular process)
Melophagus ovinus (L.)
Diptera spp. (adult)
Diptera spp. (puparium)

SIPHONAPTERA

Pulex irritans L.
Siphonaptera sp. indet.

Insecta sp. (larva)
ARACHNIDA

Aranae sp.
Acarina sp.

MOLLUSCA

Theodoxus fluviatilis (L.)
Valvata cristata Müller
V. piscinalis (Müller)
Bithynia tentaculata (L.)
B. leachii (Sheppard)
Aplexa hypnorum (L.)
Lymnaea truncatula (Müller)
L. palustris (Müller)
L. stagnalis (L.)
L. peregra (Müller)
Anisus leucostoma (Millet)
A. vortex (L.)
Bathymphalus contortus (L.)
Planorbarius corneus (L.)
Oxyloma pfeifferi (Rossmässler)
Cochlicopa lubrica (Müller)
Vertigo sp.
V. antivertigo (Drap.)
V. pygmaea (Drap.)
Pupilla muscorum (L.)
Lauria cylindracea (da Costa)
Vallonia costata (Müller)
V. pulchella (Müller)
V. excentrica Sterki
Discus rotundatus (Müller)
Vitrea crystallina (Müller)
Nesovitrea hammonis Ström
Aegopinella nitidula (Drap.)
Oxychilus cellarius (Müller)
O. alliaris (Miller)
Zonitoides nitidus (Müller)
Limax sp(p).
Deroceras sp(p).
Caecilioides acicula (Müller)
Trichia cf. *plebeia* (Drap.)
T. cf. hispida (L.)
Cepea/Arianta sp(p).
Helix aspersa Müller
Pisidium personatum Malm

Ostrea edulis L.

Appendix 1

Plant remains from Beverley Dominican Friary. Complete species lists of plant macrofossils and other components of the samples, presented in context and sample number order. Bulk-sieved subsamples have suffixes as follows: /B - washover and residue examined in detail; /R - residue only examined in detail; /W - washover only examined in detail; /V - residue 'rough-sorted, i.e. some plant remains retrieved during sorting for bone, shell, etc.; /VW - residue rough-sorted, washover examined in detail. 'Test' samples are suffixed /T and all were 1kg (except 754 which was 5kg); for all of these both the 'flot' from paraffin flotation and the residue were examined in detail, with exception of the subsample from sample 120 (suffixed /TQ) where the residue was examined only very briefly.

Context 163	Sample 163/T

Salix sp(p). (b)	1
Myrica gale (lf fgts)	1
Corylus avellana	1
Urtica dioica	4
Urtica urens	1
Polygonum aviculare agg.	2
Polygonum persicaria	2
Polygonum lapathifolium	1
Rumex sp(p).	2
Chenopodium Section Pseudoblitum	3
Chenopodium album	1
Atriplex sp(p).	2
Stellaria media	1
Agrostemma githago (sf)	1
Ranunculus Section Ranunculus	2
Ranunculus sardous	2
Ranunculus sceleratus	3
Reseda luteola	2
Rubus fruticosus agg.	1
Rubus cf. caesius	1
Potentilla cf. erecta	1
Fragaria vesca	1
Vicia sp(p). (non faba)	1
Hydrocotyle vulgaris	1
Conium maculatum	1
Marrubium vulgare	2
Lamium Section Lamiopsis	1
Stachys sp(p).	1
Stachys cf. sylvatica	1
Sambucus nigra	3
Dipsacus sativus/fullonum (fr fgts)	2
Arctium sp(p).	1
Carduus/Cirsium sp(p).	2
Juncus gerardi	1
cf. Poa annua	1
Hordeum sp(p).	1
Eleocharis palustris sl	1

Cladium mariscus	1
Carex sp(p).	1
Campylium stellatum	1
Daphnia (ephippia)	1
brick/tile	1
chalk gravel	2
charcoal	1
earthworm egg caps	2
flint	1
fly puparia	2
mammal bone	1
root/rootlet fgts	3
slug shells	1
twig fgts	1
wood fgts	2

Context 164

Sample 164/T

Salix sp(p). (tw fgts)	1
Salix sp(p). (b)	1
Betula sp(p).	1
Corylus avellana	1
Urtica dioica	3
Polygonum persicaria	1
Rumex sp(p).	3
Atriplex sp(p).	2
Stellaria media	2
Agrostemma githago (sf)	2
Ranunculus Section Ranunculus	2
Ranunculus sardous	2
Ranunculus sceleratus	2
Ranunculus flammula	1
Fumaria sp(p).	1
Brassica sp(p).	1
Brassica rapa	1
Brassica sp./Sinapis arvensis	1
Reseda luteola	2
Rubus fruticosus agg.	2
Fragaria vesca	1
Malus sylvestris (endo)	1
Prunus Section Cerasus	1
Euphorbia helioscopia	1
Hydrocotyle vulgaris	1
Aethusa cynapium	1
Conium maculatum	1
Menyanthes trifoliata	1
Rubia tinctorum	1
Marrubium vulgare	2
Galeopsis Subgenus Galeopsis	1
Lamium Section Lamiopsis	1

Stachys cf. sylvatica	1
Nepeta cataria	1
Lycopus europaeus	1
Mentha sp(p).	1
Pedicularis palustris	1
Sambucus nigra	3
Dipsacus cf. fullonum	1
Anthemis cotula	1
Anthemis cotula (ch)	1
Carduus/Cirsium sp(p).	1
Centaurea sp(p). (af)	1
Sonchus asper	1
Lapsana communis	1
Lapsana communis (ch)	1
Alisma sp(p).	1
Juncus cf. acutiflorus	1
Juncus cf. articulatus	2
Luzula sp(p).	1
Gramineae	1
Triticum aestivo-compactum	2
Triticum/Secale ('bran' fgts)	2
Hordeum sp(p). (inc spr)	2
Avena sp(p).	2
Cladium mariscus	1
Carex sp(p).	3
Campyllum stellatum	1
Scorpidium scorpioides	1
Calliargon cf. giganteum	1
Calliargon cuspidatum	1
cf. Brachythecium sp(p).	1
brick/tile	1
burnt fish bone	1
chalk gravel	1
chalk rubble	1
charcoal	1
dicot stem fgts	2
earthworm egg caps	2
fish bone	1
flint	1
fly puparia	1
mammal bone	1
pottery	1
twig fgts	1
wood fgts	2

Context 166

Sample 136/B

Salix sp(p). (b)	1
Populus sp(p). (b/bs)	1
Myrica gale	1

Corylus avellana	1
Urtica dioica	1
Urtica urens	1
Polygonum aviculare agg.	1
Polygonum hydropiper	1
Polygonum persicaria	1
Rumex sp(p).	2
Chenopodium album	1
Atriplex sp(p).	1
Agrostemma githago (sf)	1
Ranunculus Section Ranunculus	1
Ranunculus sceleratus	1
Fumaria sp(p).	1
Rubus fruticosus agg.	1
Prunus spinosa (thorns)	1
cf. Vicia sp(p).	1
cf. Pisum sativum	1
Euphorbia helioscopia	1
Aethusa cynapium	1
Conium maculatum	2
Menyanthes trifoliata	1
Marrubium vulgare	3
Lamium Section Lamiopsis	1
Stachys cf. sylvatica	1
Stachys cf. arvensis	1
Lycopus europaeus	1
Solanum dulcamara	1
Sambucus nigra	3
Dipsacus sp(p).	1
Anthemis cotula	1
Arctium sp(p).	1
Carduus/Cirsium sp(p).	1
Sonchus oleraceus	1
Triticum aestivo-compactum	1
cf. Secale cereale	1
Hordeum sp(p).	1
Avena sp(p).	1
Carex sp(p).	1
beetles	1
brick/tile	1
chalk	1
charcoal	1
coal	1
earthworm egg caps	1
fish bone	1
flint	1
fly puparia	1
glassy slag	1
snails	1
twig fgts	2
wood fgts	2

Salix sp(p). (tw fgts)	1
Salix sp(p). (tef)	1
Salix sp(p). (b)	3
Populus sp(p). (b/bs)	1
Myrica gale (lf fgts)	1
Betula sp(p).	1
Corylus avellana	1
Quercus sp(p). (b/bs)	1
Urtica dioica	2
Urtica urens	1
Polygonum aviculare agg.	1
Polygonum persicaria	1
Rumex sp(p).	1
Rumex acetosella agg.	1
Atriplex sp(p).	2
Stellaria media	2
Cerastium sp(p).	1
Scleranthus annuus	1
Agrostemma githago (sf)	2
Ranunculus Section Ranunculus	1
Ranunculus sardous	1
Ranunculus sceleratus	1
Ranunculus flammula	1
Isatis tinctoria (pod fgts)	2
Brassica rapa	1
Raphanus raphanistrum (pod segs/fgts)	1
Reseda luteola	1
Rubus/Rosa sp(p). (prickles)	1
Malus sylvestris (endo)	1
Linum usitatissimum	1
Linum usitatissimum (caps fgts)	1
Euphorbia peplus	1
Apium nodiflorum	1
Menyanthes trifoliata	1
Rubia tinctorum	2
Marrubium vulgare	1
Galeopsis Subgenus Ladanum	1
Galeopsis Subgenus Galeopsis	1
Stachys sp(p).	1
Stachys cf. arvensis	1
Lycopus europaeus	1
Pedicularis palustris	1
Sambucus nigra	2
Anthemis cotula	2
Carduus/Cirsium sp(p).	1
Leontodon sp(p).	1
Sonchus asper	2
Lapsana communis	1
Gramineae	1
Gramineae (c/n)	1

Triticum aestivo-compactum	1
Triticum/Secale ('bran' fgts)	2
Hordeum sp(p).	1
cf. Avena sp(p).	1
Cyperaceae (pap epid)	3
Eleocharis palustris s1	1
Cladium mariscus	2
Carex sp(p).	2
Campyllum stellatum	2
Drepanocladus sp(p).	1
Calliargon cuspidatum	1
Homalothecium sericeum/lutescens	1
Eurhynchium striatum	1
Ascaris (ova)	1
Trichuris (ova)	1
chalk	1
charcoal	1
dicot stem fgts	1
earthworm egg caps	1
faecal concretions	3
flint	1
fly puparia	2
snails	1
twig fgts	2
wood fgts	2

Context 169

Sample 127/W

cf. Salix sp(p). (tef)	2
Salix sp(p). (b)	1
Rumex sp(p).	1
Agrostemma githago (sf)	1
Raphanus raphanistrum (pod segs/fgts)	1
Rubus/Rosa sp(p). (prickles)	1
Rosa sp(p). (prickles)	1
Crataegus monogyna	1
Vicia sp(p). (non faba)	1
cf. Pisum sativum	1
Sambucus nigra	1
Cerealia indet. (c/n)	1
Cerealia indet. (ch c/n)	1
Triticum aestivo-compactum	2
Hordeum sp(p).	1
Avena sp(p).	1
Avena sativa (spkltts/fgts)	1
Thuidium tamariscinum	1
Campyllum stellatum	1
Drepanocladus sp(p).	1
Calliargon giganteum	1

?bees	1
amphibian bone	1
beetles	1
charcoal	1
dicot lf fgts	1
fish bone	1
fly puparia	1
mammal bone	1
snails	1
twig fgts	2
vivianite	1
wood fgts	2

Context 185

Sample 185/T

Myrica gale	1
Myrica gale (lf fgts)	2
Corylus avellana (b/bs)	1
Urtica dioica	1
Urtica urens	3
Polygonum aviculare agg.	2
Polygonum persicaria	1
Rumex acetosella agg.	1
Chenopodium Section Pseudoblitum	2
Chenopodium album	2
Atriplex sp(p).	2
Moehringia trinervia	1
Stellaria media	3
Stellaria cf. neglecta	1
Agrostemma githago (sf)	2
Ranunculus sp(p).	1
Ranunculus sceleratus	1
Ranunculus flammula	1
Ranunculus Subgenus Batrachium	1
Papaver argemone	1
Brassica sp./Sinapis arvensis	1
Raphanus raphanistrum (pod segs/fgts)	1
Reseda luteola	3
Rubus fruticosus agg.	1
Rosa sp(p).	1
Leguminosae (fls/pet)	1
Medicago lupulina (pods/fgts)	1
Linum catharticum	1
Anthriscus caucalis	2
Scandix pecten-veneris	1
Aethusa cynapium	1
Menyanthes trifoliata	2
Galium sp(p).	1
Hyoscyamus niger	1
Pedicularis palustris	1
Valerianella sp(p). (sterile cells)	1

Dipsacus cf. sativus	3
Dipsacus cf. sativus (rec br)	3
Dipsacus cf. fullonum	1
Chrysanthemum segetum	1
Leontodon sp(p).	1
Juncus gerardi	2
Gramineae	1
Scirpus lacustris s1	1
Eleocharis palustris s1	2
Cladium mariscus	1
Carex sp(p).	2
Sphagnum sp(p). (lvs)	1
Cratoneuron commutatum	1
Campylium stellatum	1
Drepanocladus sp(p).	1
Scorpidium scorpioides	1
Calliergon cf. giganteum	1
Chara sp(p).	1
?daub	1
Cenococcum (sclerotia)	1
bark fgts	2
brick/tile	1
burnt fish bone	1
burnt mammal bone	1
chalk	1
charcoal	1
earthworm egg caps	1
eggshell fgts	1
fish bone	1
mammal bone	1
pottery	1
snails	1
twig fgts	1
wood fgts	2

Context 215

Sample 137/W

Urtica dioica	1
Urtica urens	1
Polygonum aviculare agg.	1
Polygonum persicaria (ch)	1
Chenopodium album	2
Atriplex sp(p).	2
Agrostemma githago (ch)	1
Brassica sp(p).	1
Brassica rapa/nigra	1
Reseda luteola	1
Rubus fruticosus agg.	1
Berula erecta	1
Conium maculatum	1

Menyanthes trifoliata	1
Hyoscyamus niger	1
Solanum nigrum	1
Sambucus nigra	1
Cerealia indet.	2
Triticum aestivo-compactum	1
Hordeum sp(p).	1
Eleocharis palustris sl	1
Sphagnum sp(p). (lvs)	1
earthworm egg caps	1
fly puparia	1
snails	1

Context 223

Sample 139/B

Pteridium aquilinum (rachis fgts)	1
Pteridium aquilinum (pinn fgts)	1
Salix sp(p). (tw fgts)	1
Salix sp(p). (b)	1
Populus sp(p). (b/bs)	1
Myrica gale	1
Myrica gale (lf fgts)	2
Corylus avellana	1
Quercus sp(p). (b/bs)	1
Urtica dioica	1
Polygonum persicaria	1
Polygonum lapathifolium	1
Bilderdykia convolvulus	1
Bilderdykia convolvulus (ch)	1
Rumex sp(p).	1
Rumex sp(p). (ch)	1
Chenopodium Section Pseudoblitum	1
Chenopodium album	2
Atriplex sp(p).	1
Stellaria media	1
Spergula arvensis	1
Agrostemma githago	1
Agrostemma githago (ch)	1
Silene vulgaris	1
Silene vulgaris (ch)	1
Silene alba (ch)	1
Ranunculus Section Ranunculus	1
Ranunculus sceleratus	1
Brassica sp(p).	1
Brassica rapa	2
Brassica sp./Sinapis arvensis	1
Raphanus raphanistrum (pod segs/fgts)	1
Reseda luteola	1
Rubus fruticosus agg.	1
Malus sylvestris	1

Vicia sp(p). (non faba)	1
Vicia cf. hirsuta	2
Vicia faba	1
cf. Pisum sativum	1
Linum usitatissimum	1
Scandix pecten-veneris	1
Oenanthe lachenalii	1
Conium maculatum (mf)	1
Apium graveolens	1
cf. Daucus carota	1
Menyanthes trifoliata	2
Menyanthes trifoliata (ch)	1
Galium aparine (ch)	1
Buglossoides arvensis (ch)	1
cf. Marrubium vulgare	1
Galeopsis Subgenus Galeopsis	1
Stachys cf. arvensis	1
Pedicularis palustris	1
Sambucus nigra	1
Valerianella sp(p). (sterile cells)	1
Anthemis cotula	1
Chrysanthemum segetum	2
Chrysanthemum segetum (ch)	1
Carduus/Cirsium sp(p).	1
Lapsana communis	1
Gramineae/Cerealia (c/n)	2
Gramineae/Cerealia (ch c/n)	1
Cerealia indet.	1
Triticum aestivo-compactum (inc spr)	2
Hordeum sp(p). (inc spr)	2
Avena sp(p). (inc spr)	2
Avena sativa (spkltts/fgts)	2
Eleocharis palustris sl	1
Cladium mariscus	1
Carex sp(p).	2
Bryum capillare	1
Plagiomnium sp(p).	1
Plagiomnium cf. affine	1
Campylium stellatum	1
cf. Campylium elodes	1
Scorpidium scorpioides	2
Calliergon cf. giganteum	1
Calliergon cuspidatum	1
Homalothecium sericeum/lutescens	1
amphibian bone	1
bark fgts	1
beetles	1
burnt fish bone	1
burnt mammal bone	1
chalk	1
charcoal	2
daub	1

earthworm egg caps	1
eggshell fgts	1
fish bone	1
fish scale	1
fly puparia	1
mammal bone	1
mortar	1
moss	1
shellfish fgts	1
snails	1
twig fgts	3
wood fgts	3

Context 225

Sample 134/B

<i>Pteridium aquilinum</i> (rachis fgts)	1
<i>Myrica gale</i>	1
<i>Myrica gale</i> (lf fgts)	1
<i>Betula</i> cf. <i>pendula</i> (bark fgts)	1
<i>Corylus avellana</i>	1
<i>Corylus avellana</i> (ch)	1
<i>Quercus</i> sp(p). (b/bs)	1
<i>Urtica urens</i>	1
<i>Polygonum aviculare</i> agg.	1
<i>Polygonum hydropiper</i>	1
<i>Polygonum persicaria</i>	1
<i>Polygonum lapathifolium</i>	1
<i>Bilderdykia convolvulus</i>	1
<i>Rumex</i> sp(p).	1
<i>Rumex acetosella</i> agg.	1
<i>Chenopodium album</i>	2
<i>Atriplex</i> sp(p).	2
<i>Stellaria media</i>	2
<i>Spergula arvensis</i>	1
<i>Agrostemma githago</i>	1
<i>Agrostemma githago</i> (sf)	1
<i>Agrostemma githago</i> (ch)	1
<i>Agrostemma githago</i> (fused s)	1
<i>Ranunculus</i> Section <i>Ranunculus</i>	1
<i>Ranunculus sardous</i>	1
<i>Ranunculus sceleratus</i>	1
<i>Ranunculus flammula</i>	1
<i>Papaver</i> sp(p). (caps lids/fgts)	1
<i>Brassica rapa</i>	1
cf. <i>Sinapis arvensis</i>	1
<i>Raphanus raphanistrum</i> (pod segs/fgts)	1
<i>Rubus idaeus</i>	1
<i>Rubus fruticosus</i> agg.	2
<i>Potentilla palustris</i>	1
<i>Potentilla anserina</i>	1
<i>Potentilla</i> cf. <i>erecta</i>	1

Prunus spinosa	1
Prunus Section Cerasus	1
Genista tinctoria (st fgts)	1
Vicia hirsuta	1
cf. Pisum sp(p). (ch cot)	1
Linum usitatissimum	1
Ilex aquifolium (lef)	1
Viola sp(p).	1
Hydrocotyle vulgaris	1
Scandix pecten-veneris	1
Scandix pecten-veneris (ch)	1
Aethusa cynapium	1
Conium maculatum	1
Menyanthes trifoliata	1
Galium aparine (ch)	1
Buglossoides arvensis	1
Marrubium vulgare	1
Galeopsis Subgenus Ladanum	1
Galeopsis Subgenus Galeopsis	1
Lamium Section Lamiopsis	1
Stachys cf. arvensis	1
Prunella vulgaris	1
Pedicularis palustris	1
Sambucus nigra	1
Valerianella sp(p). (sterile cells)	1
Valerianella dentata	1
Anthemis cotula	1
Senecio sp(p).	1
Carduus/Cirsium sp(p).	1
Centaurea sp(p).	1
Centaurea sp(p). (af)	1
Leontodon sp(p).	1
cf. Picris hieracioides	1
Sonchus asper	1
Sonchus oleraceus	1
Lapsana communis	1
Potamogeton sp(p).	1
Juncus bufonius	2
Gramineae/Cerealia (c/n)	2
Cerealia indet. (c/n)	1
Cerealia indet.	2
Triticum sp(p). (hexaploid)	1
Triticum aestivo-compactum	2
Hordeum sp(p).	1
cf. Hordeum sp(p).	1
Avena sp(p).	1
cf. Alopecurus sp(p). (ch)	1
Scirpus lacustris s1	2
Eleocharis palustris s1	1
Cladium mariscus	2
Carex sp(p).	2
Antitrichia curtispindula	1
Neckera complanata	1

Thuidium tamariscinum	1
Campylium stellatum	1
Scorpidium scorpioides	1
Pseudoscleropodium purum	1
Hypnum cupressiforme	1
?faecal concretions	1
?sheep keds	1
amorphous peat fgts	2
bark fgts	1
beetles	1
brick/tile	1
burnt mammal bone	1
chalk	1
charcoal	2
earthworm egg caps	1
fish bone	1
flint	1
fly puparia	1
leather fgts	1
mammal bone	1
pottery	1
snails	1
twig fgts	1
vivianite	1
wood fgts	3

Context 225

Sample 134/T

Filicales (pinn fgts)	1
Myrica gale (lf fgts)	1
Betula sp(p). (b/bs)	1
Corylus avellana	1
Quercus sp(p). (b/bs)	1
Urtica dioica	2
Polygonum aviculare agg.	1
Polygonum persicaria	1
Polygonum lapathifolium	2
Rumex sp(p).	2
Chenopodium Section Pseudoblitum	1
Chenopodium album	2
Atriplex sp(p).	1
Stellaria media	1
Stellaria graminea	1
Lychnis flos-cuculi	1
Agrostemma githago	2
Agrostemma githago (sf)	2
Ranunculus Section Ranunculus	1
Ranunculus sardous	1
Ranunculus sceleratus	1
Papaver somniferum	1

Papaver dubium	1
Papaver argemone	1
Brassica rapa	1
Brassica sp./Sinapis arvensis	1
Raphanus raphanistrum (pod segs/fgts)	1
Rubus fruticosus agg.	1
Potentilla cf. reptans	1
Prunus sp(p). (tw fgts)	1
Leguminosae (pods/fgts)	2
Genista tinctoria (st fgts)	1
cf. Vicia hirsuta (w/l s)	1
Linum usitatissimum	2
Linum usitatissimum (caps fgts)	1
Viola sp(p).	1
Scandix pecten-veneris	2
Aethusa cynapium	1
cf. Daucus carota	1
Menyanthes trifoliata	1
Galeopsis Subgenus Ladanum	1
Galeopsis Subgenus Galeopsis	2
Lamium Section Lamiopsis	1
Prunella vulgaris	1
Sambucus nigra	2
Anthemis cotula	3
Anthemis cotula (ch)	1
Achillea millefolium	1
Carduus/Cirsium sp(p).	1
Centaurea sp(p).	2
Centaurea sp(p). (af)	1
Sonchus asper	1
Sonchus arvensis	1
Lapsana communis	2
Triglochin maritima	1
Juncus sp(p).	1
Juncus inflexus/effusus/conglomeratus	1
Juncus gerardi	1
Juncus bufonius	2
Gramineae	1
Gramineae (c/n)	1
Gramineae/Cerealia (c/n)	1
Triticum aestivo-compactum	2
Triticum/Secale (w/l)	1
Triticum/Hordeum sp(p). (rachis fgts)	1
Hordeum sp(p). (inc spr)	2
Eleocharis palustris sl	1
Cladium mariscus	1
Carex sp(p).	3
Sphagnum sp(p). (lvs)	1
Antitrichia curtispindula	1
Neckera complanata	1
Thuidium tamariscinum	1
Cratoneuron filicinum	1
Drepanocladus sp(p).	1

Scorpidium scorpioides	1
Calliergon cf. giganteum	1
Calliergon cuspidatum	1
Isoetecium myosuroides	1
Homalothecium sericeum/lutescens	2
Hypnum cupressiforme	1
Rhytidiadelphus squarrosus	1
Chara sp(p).	1
?daub	1
Daphnia (ephippia)	1
bark fgts	1
chalk gravel	1
charcoal	2
dicot stem fgts	2
flint	1
fly puparia	1
herbaceous detritus	3
moss	1
oolitic limestone	1
rat-tailed maggot (resp proc)	1
twig fgts	1
wood chips	1
wood fgts	3

Context 229

Sample 229/T

cf. Salix sp(p). (tw fgts)	1
cf. Salix sp(p). (1f fgts)	1
Salix sp(p). (b)	1
cf. Myrica gale (1f fgts)	1
Ficus carica	2
Urtica dioica	1
Urtica urens	1
Polygonum aviculare agg.	1
Polygonum persicaria (ch)	1
Polygonum lapathifolium	1
Rumex sp(p).	1
Rumex acetosella agg.	1
Chenopodium Section Pseudoblitum	3
Chenopodium album	2
Chenopodium album (ch)	1
Atriplex sp(p).	1
Stellaria media	2
Spergula arvensis (ch)	1
Lychnis flos-cuculi	1
Agrostemma githago (sf)	2
Silene vulgaris	2
Silene vulgaris ssp. maritima	1
Silene alba	1
Caltha palustris	1

Ranunculus Section Ranunculus	2
Ranunculus sardous	1
Ranunculus flammula	2
Thalictrum flavum	1
Brassica rapa	2
Brassica rapa (ch)	1
Brassica cf. nigra	1
Brassica sp./Sinapis arvensis	1
Raphanus raphanistrum (pod segs/fgts)	1
Reseda luteola	1
Filipendula ulmaria	2
Rubus fruticosus agg.	2
Potentilla cf. erecta	1
Potentilla cf. reptans	1
Malus sylvestris (endo)	1
Leguminosae (fls/pet)	1
cf. Vicia sp(p).	1
cf. Pisum sativum	1
Medicago lupulina (pods/fgts)	1
Medicago lupulina (ch pods/fgts)	1
Linum usitatissimum (caps fgts)	1
Linum usitatissimum (min)	1
Linum catharticum	1
Anthriscus caucalis	1
Scandix pecten-veneris	1
Peucedanum ostruthium	1
Menyanthes trifoliata	1
Galium sp(p).	1
Galeopsis Subgenus Ladanum	1
Galeopsis Subgenus Galeopsis (ch)	1
Lamium Section Lamiopsis	1
Prunella vulgaris	2
Lycopus europaeus	1
Hyoscyamus niger	1
Solanum nigrum	1
Pedicularis palustris	1
Rhinanthus sp(p).	1
Sambucus nigra	1
Valerianella dentata	1
Anthemis cotula	2
Anthemis cotula (ch)	1
Chrysanthemum segetum	2
Chrysanthemum segetum (ch)	1
Senecio sp(p).	1
Centaurea sp(p).	2
Centaurea sp(p). (af)	1
Hypochoeris sp(p).	1
Leontodon sp(p).	2
Sonchus oleraceus	1
Lapsana communis	1
Juncus cf. articulatus	1
Gramineae	2
cf. Gramineae (culm fgts)	2

Ranunculus flammula	1
Ranunculus cf. lingua	1
Thalictrum flavum	1
Brassica rapa	2
Brassica sp./Sinapis arvensis	1
Raphanus raphanistrum (pod segs/fgts)	1
Raphanus raphanistrum (ch pod segs/fgts)	1
Reseda luteola	1
Rubus fruticosus agg.	1
Potentilla cf. erecta	1
Prunus Section Cerasus	1
Vicia sp(p). (non faba)	2
Vicia faba	1
Medicago lupulina (ch pods/fgts)	1
Linum usitatissimum	1
Umbelliferae	1
Anthriscus sylvestris	1
Buglossoides arvensis	1
Buglossoides arvensis (ch)	2
Galeopsis Subgenus Ladanum	1
Sambucus nigra	1
Chrysanthemum segetum	2
Chrysanthemum segetum (ch)	2
Centaurea sp(p).	1
Sonchus oleraceus	1
Lapsana communis	1
Gramineae/Cerealia (ch c/n)	1
Triticum aestivo-compactum	2
Hordeum sp(p). (inc spr)	2
Avena sp(p).	1
Avena sativa (spkltts/fgts)	2
Eleocharis palustris sl	1
Carex sp(p).	1
Scorpidium scorpioides	1
Calliargon cf. giganteum	1
Calliargon cuspidatum	1
cf. Rhytidiadelphus triquetrus	1
?ash	2
?bees	1
bark fgts	1
brick/tile	1
burnt fish bone	1
chalk	1
charcoal	3
earthworm egg caps	1
fish bone	1
fly puparia	1
mammal bone	1
twig fgts	3
wood fgts	3

Context 754 Sample 754/T

Buglossoides arvensis	1
charcoal	1
coal	1
fish bone	2
snails	2

Context 893 Sample 106/W

Polygonum persicaria	1
Atriplex sp(p).	1
Triticum sp(p).	2
Triticum cf. aestivo-compactum	2
charcoal	2
fish scale	1
snails	1

Context 924 Sample 26/W

Fumaria sp(p).	1
Sambucus nigra	1
amphibian bone	1
charcoal	1

Context 953 Sample 113/VW

Sambucus nigra	1
Cerealia indet.	1
Triticum aestivo-compactum	1
Fe object	1
burnt fish bone	1
burnt mammal bone	1
chalk	2
charcoal	2
eggshell fgts	1
fish bone	1
mammal bone	1
mortar	1
oyster shell fgts	1
root moulds (min)	3
snails	1

Context 957 Sample 36/VW

Chenopodium album	1
Fumaria sp(p).	1
Rubus fruticosus agg.	1
Aethusa cynapium	1
Sambucus nigra	1
Carex sp(p).	1
brick/tile	1
charcoal	2
fish bone	1
mammal bone	1
pottery	1
slag	1
wood fgts	1

Context 958 Sample 60/W

Corylus avellana	1
Cannabis sativa	1
Chenopodium album	2
Atriplex sp(p).	2
Ranunculus sardous	1
Fumaria sp(p).	2
Rubus fruticosus agg.	1
Euphorbia helioscopia	1
Aethusa cynapium	2
Menyanthes trifoliata	1
Lamium Section Lamiopsis	1
Sambucus sp(p). (sf)	1
Triticum aestivo-compactum	1
Carex sp(p).	1

Context 958 Sample 103/W

Cannabis sativa	1
Chenopodium album	2
Atriplex sp(p).	1
Stellaria media	1
Fumaria sp(p).	1
Rubus fruticosus agg.	1
Euphorbia helioscopia	1
Umbelliferae	1
Aethusa cynapium	1
Conium maculatum	1
Menyanthes trifoliata	1

Lamium Section Lamiopsis	1
Pedicularis palustris	1
Sambucus cf. ebulus	1
Sambucus nigra	1
Carex sp(p).	1

Context 959 Sample 3/W

Cannabis sativa	1
Chenopodium album	1
Atriplex sp(p).	1
Fumaria sp(p).	1
Rubus fruticosus agg.	1
Conium maculatum	1
Sambucus nigra	1
Cerealia indet.	1
Triticum aestivo-compactum	1

charcoal	1
----------	---

Context 959 Sample 8/W

Chenopodium album	1
Atriplex sp(p).	1
Rubus fruticosus agg.	1
Aethusa cynapium	1
Conium maculatum	1
Sambucus nigra	1
Carex sp(p).	1

charcoal	1
----------	---

Context 994 Sample 121/T

brick/tile	2
chalk	1
fine charcoal	1
fish bone	1
mammal bone	1
mortar	3
mussel shell fgts	1
oolitic limestone	1
sand	3

Context 1043 Sample 40/VW

Stellaria media	1
Chrysanthemum segetum	1
amphibian bone	1
brick/tile	1
charcoal	1
mammal bone	1
slug granules	1
snails	1

Context 1047 Sample 123/W

Brassica sp(p).	1
Rubus fruticosus agg.	1
Hyoscyamus niger	1
Sambucus nigra	1
charcoal	1
earthworm egg caps	1
eggshell fgts	1
fish scale	1
snails	1

Context 1048 Sample 41/VW

Fumaria sp(p).	1
Rubus fruticosus agg.	1
Conium maculatum	1
Lamium Section Lamiopsis	1
Sambucus nigra	1
Triticum aestivo-compactum	1
Fe object	1
chalk	2
charcoal	1
fish bone	1
mammal bone	1
pottery	1
root moulds (min)	2

Context 1074

Sample 42/W

Atriplex sp(p).	1
Ranunculus sardous	1
Ranunculus sceleratus	1
Fumaria sp(p).	1
Rubus fruticosus agg.	1
Potentilla anserina	1
cf. Oenanthe aquatica	1
Aethusa cynapium	1
Conium maculatum	1
Menyanthes trifoliata	1
Lamium Section Lamiopsis	2
Sambucus nigra	1
Arctium sp(p).	1
Triticum aestivo-compactum	1
Scirpus lacustris sl	1
Eleocharis palustris sl	1
Cladium mariscus	1
Carex sp(p).	1
charcoal	1
coal	1
earthworm egg caps	1
fly puparia	1
wood fgts	1

Context 1078

Sample 135/V

Corylus avellana (ch)	1
brick/tile	1
chalk	1
charcoal	1
fish bone	1
mammal bone	1
mortar	3
pottery	1
slag	1

Context 1092

Sample 117/W

Conium maculatum	1
Sambucus sp(p). (sf)	1
brick/tile	1
charcoal	1
coal	1

fly puparia 1

Context 1093

Sample 133/W

Salix sp(p). (tef)	1
Salix sp(p). (b)	1
Corylus avellana	1
Quercus sp(p). (b/bs)	2
Ficus carica	2
Cannabis sativa	1
Urtica dioica	1
Urtica urens	1
Bilderdykia convolvulus	1
Rumex sp(p).	1
Chenopodium album	1
Atriplex sp(p).	1
Stellaria media	1
Silene vulgaris	1
Ranunculus Section Ranunculus	1
Ranunculus sardous	1
Ranunculus flammula	1
Brassica rapa	1
Brassica sp./Sinapis arvensis	1
Raphanus raphanistrum (pod segs/fgts)	1
Rubus fruticosus agg.	1
Rubus/Rosa sp(p). (prickles)	1
Potentilla cf. erecta	1
Prunus spinosa	1
Ilex aquifolium (lef)	1
Viola sp(p).	1
Umbelliferae	1
Anthriscus sylvestris	1
Conium maculatum	1
Lamium Section Lamiopsis	1
Prunella vulgaris	1
Hyoscyamus niger	1
Solanum nigrum	1
Sambucus nigra	2
Valerianella dentata	1
Carex sp(p).	2
Sphagnum imbricatum (lvs)	2
Drepanocladus sp(p).	1
Homalothecium sericeum/lutescens	1
brick/tile	1
caddis larva cases	1
charcoal	1
coal	1
earthworm egg caps	1
fly puparia	1

Context 1094

Sample 138/VW

Populus sp(p).	1
Corylus avellana	1
Quercus sp(p). (b/bs)	1
Ficus carica	1
Polygonum persicaria	1
Atriplex sp(p).	1
Agrostemma githago (sf)	1
Ranunculus Section Ranunculus	1
Brassica rapa	1
Brassica sp./Sinapis arvensis	1
Raphanus raphanistrum (pod segs/fgts)	1
Reseda luteola	1
Prunus spinosa	1
Conium maculatum	1
Hyoscyamus niger	1
Sambucus nigra	1
Sonchus asper	1
Potamogeton sp(p).	1
Carex sp(p).	1
beetles	1
brick/tile	3
charcoal	1
coal	1
earthworm egg caps	1
eggshell fgts	1
fish bone	1
fly puparia	1
leather fgts	1
mammal bone	1
mortar	1
mussel shell fgts	1
oyster shell fgts	1
pottery	1
shellfish fgts	1
slag	1
snails	1
wood fgts	1

Context 1095

Sample 129/V

Corylus avellana	1
Prunus spinosa	1
bark fgts	1
brick/tile	1
chalk	3
coal	1

Mentha sp(p).	1
Carduus/Cirsium sp(p).	2
Potamogeton sp(p).	1
Carex sp(p).	2

amorphous peat fgts	3
brick/tile	1
chalk	2
charcoal	1
coal	2
earthworm egg caps	1
fish bone	1
mammal bone	1
monocot lf/stem fgts	3
mortar	1
oyster shell fgts	2
pottery	1
snails	1
wood fgts	1

Context 1106

Sample 120/TQ

Quercus sp(p). (b/bs)	1
Urtica dioica	1
Polygonum aviculare agg.	1
Stellaria media	1
Ranunculus flammula	1
Rorippa islandica	1
Reseda luteola	2
Potentilla palustris	1
Hydrocotyle vulgaris	2
Menyanthes trifoliata	2
Mentha sp(p).	1
Potamogeton sp(p).	1
Juncus cf. articulatus	1
Carex sp(p).	2
Chara sp(p).	1

beetles	1
brick/tile	1
chalk	1
charcoal	1
coal	1
earthworm egg caps	2
monocot stem fgts	2
oyster shell fgts	1
peat fgts	4
wood fgts	1

Context 1106

Sample 140/R

Corylus avellana	1
Chenopodium album	1
Stellaria media	1
Ranunculus Section Ranunculus	1
Ranunculus flammula	1
Thalictrum flavum	1
Reseda luteola	1
Potentilla anserina	1
Potentilla cf. erecta	1
Hydrocotyle vulgaris	2
Menyanthes trifoliata	2
Mentha sp(p).	1
Chrysanthemum segetum	1
Chrysanthemum segetum (ch)	1
Potamogeton sp(p).	1
Cladium mariscus	1
Carex sp(p).	2
amorphous peat fgts	3
bark fgts	1
brick/tile	1
chalk	1
charcoal	1
coal	1
earthworm egg caps	2
fish bone	1
mammal bone	1
metallic slag	1
mortar	1
moss	1
oyster shell fgts	3
twig fgts (ch)	1
wood fgts	1

Context 1107

Sample 132/B

Polygonum aviculare agg.	1
Atriplex sp(p).	1
Stellaria media	1
Ranunculus Section Ranunculus	1
Ranunculus flammula	1
Brassica rapa	1
Reseda luteola	1
Potentilla anserina	1
Prunus domestica ssp. domestica	1
Umbelliferae	1
Hydrocotyle vulgaris	1
Aethusa cynapium	1

Conium maculatum	1
Menyanthes trifoliata	2
Potamogeton sp(p).	1
Carex sp(p).	2
amorphous peat fgts	3
brick/tile	2
chalk	3
charcoal	1
coal	1
earthworm egg caps	2
eggshell fgts	1
faecal concretions	3
fish bone	2
mammal bone	1
moss	1
oyster shell fgts	3
shellfish fgts	2
wood fgts	1

Context 1109

Sample 45/B

Salix sp(p). (b)	1
Populus sp(p). (b/bs)	1
Corylus avellana	1
Ficus carica	1
Cannabis sativa	1
Rumex sp(p).	1
Atriplex sp(p).	1
Stellaria media	1
Ranunculus Section Ranunculus	1
Ranunculus flammula	1
Brassica rapa	2
Brassica sp./Sinapis arvensis	1
Raphanus raphanistrum (pod segs/fgts)	1
Euphorbia helioscopia	1
Viola sp(p).	1
Umbelliferae	1
Hydrocotyle vulgaris	1
Menyanthes trifoliata	2
Stachys sp(p).	1
Carduus/Cirsium sp(p).	1
Sonchus asper	1
Sonchus oleraceus	1
Taraxacum sp(p).	1
Lapsana communis	1
Carex sp(p).	2
?burnt peat fgts	1
?wood chips	1
amorphous peat fgts	2

Context 1149 Sample 48/W

Atriplex sp(p). 1
Aethusa cynapium 1
Conium maculatum 1
Triticum cf. aestivo-compactum 1
cf. Hordeum sp(p). 1

Context 1184 Sample 91184/W

Fumaria sp(p). 1
cf. Avena sp(p). 1

Context 1186 Sample 87/V

cf. Hordeum sp(p). 1
Avena sp(p). 1

charcoal 1
fish bone 1
mammal bone 1
slag 1
stones 3

Context 1188 Sample 5/W

Corylus avellana 1
Urtica urens 1
Chenopodium album 1
Atriplex sp(p). 2
Stellaria media 1
Agrostemma githago (sf) 1
Ranunculus Section Ranunculus 1
Ranunculus sardous 1
Ranunculus flammula 1
Thalictrum flavum 1
Fumaria sp(p). 1
Brassica rapa 1
Raphanus raphanistrum (pod segs/fgts) 1
Rubus fruticosus agg. 1
Potentilla anserina 1
Euphorbia helioscopia 1
Aethusa cynapium 1
Conium maculatum 1

Menyanthes trifoliata	1
Lamium Section Lamiopsis	2
Hyoscyamus niger	1
Sambucus nigra	1
Avena sp(p).	1
Avena sp(p). (spklts/fgts)	1
Scirpus lacustris sl	1
Eleocharis palustris sl	1
Carex sp(p).	2
amorphous peat fgts	1
charcoal	1
coal	1
earthworm egg caps	1
fish scale	1
mammal bone	1
wood fgts	2

Context 1188

Sample 16/W

Corylus avellana	1
Urtica urens	1
Chenopodium album	2
Atriplex sp(p).	1
Stellaria media	1
Ranunculus sardous	1
Fumaria sp(p).	1
Brassica rapa	1
Reseda luteola	1
Rubus fruticosus agg.	1
Euphorbia helioscopia	1
Aethusa cynapium	1
Lamium Section Lamiopsis	1
Sambucus nigra	1
Triticum aestivo-compactum	1
Scirpus cf. lacustris sl	1
Eleocharis palustris sl	1
Cladium mariscus	1
Carex sp(p).	1
fish scale	1

Context 1188

Sample 75/R

Corylus avellana (ch)	1
Chenopodium album	1
Fumaria sp(p).	1
Rubus fruticosus agg.	1
Euphorbia helioscopia	1

Aethusa cynapium	1
Lamium Section Lamiopsis	1
Sambucus nigra	1
Cerealia indet.	1

chalk	2
charcoal	2
fish bone	2
fish scale	1
mammal bone	2
mortar	1
moss	1
slug granules	1
stones	1
wood fgts	1

Context 1188

Sample 110/W

Chenopodium album	1
Atriplex sp(p).	1
Stellaria media (ch)	1
Rubus fruticosus agg.	1
Aethusa cynapium	1
Conium maculatum	1
Lamium Section Lamiopsis	1
Cerealia indet.	1
Triticum aestivo-compactum	1
charcoal	1

Context 1188

Sample 91188/T

Urtica dioica	2
Urtica urens	1
Chenopodium polyspermum	1
Chenopodium album	2
Atriplex sp(p).	1
Arenaria serpyllifolia	1
Stellaria media	1
Ranunculus sardous	1
Fumaria sp(p).	1
Brassica rapa	1
Reseda luteola	1
Rubus fruticosus agg.	1
Euphorbia helioscopia	1
Oenanthe sp(p).	1
Aethusa cynapium	1
Conium maculatum	1
Menyanthes trifoliata (imm s)	1

Fumaria sp(p).	1
Aethusa cynapium	1
Conium maculatum	1
Triticum cf. aestivo-compactum	1
Hordeum sp(p).	1

Fe object	1
brick/tile	3
charcoal	3
clinker	2
coal	2
daub	3
eggshell fgts	1
fish bone	1
mammal bone	1
mortar	1
root/rootlet fgts	1
shellfish fgts	1
snails	1

Context 1210

Sample 50/R

Cannabis sativa	1
Chenopodium album	1
Atriplex sp(p).	1
Fumaria sp(p).	1
Vicia cf. hirsuta	1
Euphorbia helioscopia	1
Aethusa cynapium	1
Conium maculatum	1
Carduus/Cirsium sp(p). (ch)	1
Cerealia indet.	2
Cerealia indet. (rachis internodes)	1
Triticum aestivo-compactum	2
Hordeum sp(p).	2
?daub	2
chalk	1
charcoal	2
small mammal tooth	1
stones	1

Context 1210

Sample 91210/T

Fumaria sp(p).	1
Raphanus raphanistrum (ch fr stalk fgts)	1
Conium maculatum	1
Carduus/Cirsium sp(p). (ch)	1
Gramineae/Cerealia (ch c/n)	1

Cerealia indet. (chaff)	3
Triticum aestivo-compactum	3
Triticum/Hordeum sp(p). (rachis fgts)	3
Hordeum sp(p).	3
Hordeum sp(p). (spklts/fgts)	1
Avena sp(p).	1
Avena fatua (spklts/fgts)	1
Avena sativa (spklts/fgts)	1
brick/tile	1
burnt mammal bone	1
charcoal	1
fish bone	1
mammal bone	1
root/rootlet fgts	2
twig fgts (ch)	1

Context 1210

Sample 91210/W

Cannabis sativa	1
Polygonum persicaria (ch)	1
Bilderdykia convolvulus (ch)	1
Rumex sp(p).	1
Atriplex sp(p).	1
Vicia cf. hirsuta	1
Conium maculatum	1
Galeopsis Subgenus Ladanum (ch)	1
cf. Chrysanthemum segetum (ch)	1
Carduus/Cirsium sp(p). (ch)	1
Gramineae (ch)	1
Cerealia indet.	1
Cerealia indet. (glb)	2
Cerealia indet. (spkltb)	1
Cerealia indet. (rachis internodes)	2
Cerealia indet. (chaff)	2
Hordeum sp(p).	1
Avena sativa (spklts/fgts)	1
charcoal	1

Context 1212

Sample 76/V

Hordeum sp(p).	1
charcoal	3
daub	3
fish bone	1
mammal bone	1
slag	1

Context 1212 Sample 99/VW

Chenopodium album (ch)	1
Atriplex sp(p). (ch)	1
Hordeum sp(p).	1
brick/tile	2
charcoal	2
daub	3
fish bone	1
mammal bone	1
mortar	1
slag	1

Context 1214 Sample 51/VW

Atriplex sp(p).	1
Cerealia indet.	1
Sphagnum imbricatum (shts)	1
chalk	1
charcoal	2
daub	3
mammal bone	1
slag	1

Context 1214 Sample 91214/T

Atriplex sp(p).	1
Fumaria sp(p).	1
Aethusa cynapium	1
Lamium Section Lamiopsis	1
Gramineae/Cerealia (ch c/n)	1
Cerealia indet.	1
Triticum aestivo-compactum	1
Triticum/Hordeum sp(p). (rachis fgts)	1
Hordeum sp(p).	2
cf. Avena sp(p).	1
charcoal	2
fish bone	1

Context 1215

Sample 126/V

Cerealia indet.	1
Triticum aestivo-compactum	2
Hordeum sp(p).	1
brick/tile	2
chalk	1
charcoal	2
coal	1
daub	3
fish bone	1
mammal bone	1
mortar	1
slag	1

Context 2009

Sample 100/VW

Euphorbia helioscopia	1
Scirpus maritimus/lacustris	1
bird bone	1
brick/tile	2
chalk	2
charcoal	3
charred organic material	2
clinker/coke	3
coal	1
eggshell fgts	1
fish bone	1
glass	1
mammal bone	1
mortar	1
pottery	1
root/rootlet fgts	1
shellfish fgts	1
snails	1
wood fgts	1

Context 2009

Sample 101/V

Aethusa cynapium	1
bird bone	1
brick/tile	2
chalk	3
charcoal	2
clinker	1

snails 2

Context 3053 Sample 98/W

Rubus fruticosus agg. 1
Aethusa cynapium 1
Chrysanthemum segetum (ch) 1
Hordeum sp(p). 1
Carex sp(p). (ch) 1

charcoal 1
coal 1
snails 1

Context 3055 Sample 54/W

charred organic material 1
snails 1

Context 3111 Sample 84/W

Rubus fruticosus agg. 1

charcoal 2
coal 1
fish bone 1
snails 2

Appendix 2

	FOOO	1	2	1
	HERB	1	2	1
Vegetation	ARTE	13	22	39
	CHEN	15	25	39
	SECA	12	20	32
	QUFA	7	12	24
	RHPR	5	8	20
	BIDE	4	7	16
	MOAR	7	12	15
	PHRA	6	10	14
	EPIL	4	7	11
	SCCA	5	8	9
	ALNE	2	3	8
	NACA	2	3	6
	CAKI	1	2	4
	FEBR	1	2	4
	ISNA	1	2	4
	LITT	2	3	4
	TRGE	1	2	2
	OXSP	1	2	1
Mosses	FENS	4	7	7
	MARS	4	7	7
	BOGS	2	3	3
	DUNS	1	2	2
	GRAS	1	2	2
	UNCL	1	2	0
Ecology	CALC	2	3	6
	FUGE	1	2	2
Unclassified	UNCL	10	17	0

Context 167 Sample 167/T No. of taxa 63

	Group	No. taxa	%Taxa	AIV
Uses	FOOS	8	13	30
	DYES	4	6	16
	WOOD	5	8	9
	FIBR	2	3	6
	USEF	1	2	6
	FOOO	3	5	5
	FOOF	1	2	1
	HERB	1	2	1
Vegetation	CHEN	17	27	44
	SECA	13	21	36
	ARTE	8	13	18
	PHRA	6	10	16
	BIDE	4	6	13
	QUFA	5	8	13
	RHPR	3	5	10
	ALNE	3	5	8
	EPIL	3	5	8
	MOAR	4	6	8

	SCCA	3	5	6
	PLAN	2	3	5
	CAKI	1	2	4
	NACA	2	3	4
	OXSP	2	3	3
	FEBR	1	2	2
	ISNA	1	2	2
	LITT	1	2	2
	SESC	1	2	2
	QUER	1	2	1
Mosses	DUNS	2	3	6
	FENS	2	3	6
	MARS	2	3	6
	LIGN	2	3	4
	SLIT	2	3	4
	GRAS	1	2	2
	OLIT	1	2	2
	SOIL	1	2	2
	WOOF	1	2	2
	UNCL	1	2	0
Ecology	CALC	2	3	4
	FUGE	1	2	1
Unclassified	UNCL	12	19	0

Context 185 Sample 185/T No. of taxa 53

	Group	No. taxa	%Taxa	AIV
Uses	DYES	3	6	12
	FOOS	2	4	6
	FOOF	2	4	3
	HERB	2	4	3
	USEF	1	2	3
	WOOD	1	2	1
Vegetation	CHEN	16	30	54
	ARTE	10	19	41
	SECA	9	17	31
	BIDE	6	11	22
	PHRA	4	8	14
	MOAR	5	9	12
	NACA	4	8	10
	QUFA	4	8	9
	ALNE	3	6	8
	OXSP	3	6	8
	PLAN	2	4	8
	SCCA	3	6	8
	ASTE	1	2	6
	EPIL	3	6	6
	USEF	2	4	6
	CAKI	1	2	4
	FEBR	2	4	4
	RHPR	2	4	4

	CHAR	1	2	3
	POTA	1	2	3
	LITT	1	2	2
	SESC	1	2	2
	BULB	1	2	1
	ISNA	1	2	1
	MOCA	1	2	1
	SESL	1	2	1
Mosses	FENS	4	8	8
	BOGS	3	6	6
	MARS	3	6	5
	DUNS	1	2	2
	UNCL	1	2	0
Ecology	CALC	1	2	6
	FUGE	1	2	2
Unclassified	UNCL	8	15	0

Context 225 Sample 134/T No. of taxa 81

	Group	No. taxa	%Taxa	AIV
Uses	FOOS	9	11	37
	FOOO	4	5	11
	FIBR	2	2	9
	DYES	2	2	4
	FOOF	2	2	4
	HERB	3	4	3
	USEF	1	1	3
	WOOD	3	4	3
Vegetation	CHEN	25	31	65
	SECA	19	23	57
	MOAR	10	12	20
	ARTE	7	9	18
	QUFA	8	10	18
	BIDE	6	7	16
	RHPR	4	5	14
	EPIL	3	4	10
	ALNE	3	4	8
	ISNA	2	2	8
	PHRA	4	5	8
	ASTE	2	2	6
	NACA	3	4	6
	PLAN	2	2	5
	CAKI	2	2	4
	FEBR	3	4	4
	TRGE	3	4	4
	CHAR	1	1	3
	OXSP	2	2	3
	SCCA	1	1	2
QUER	1	1	1	
SESC	1	1	1	
Mosses	LIGN	6	7	14

	SLIT	5	6	12
	OLIT	3	4	8
	WOOF	4	5	8
	MARS	4	5	7
	BOGS	3	4	6
	DUNS	2	2	6
	SOIL	2	2	6
	FENS	3	4	5
	GRAS	2	2	4
	HEMO	2	2	4
	UNCL	1	1	0
Ecology	CALC	1	1	4
Unclassified	UNCL	12	15	0

Context 229 Sample 229/T No. of taxa 94

	Group	No. taxa	%Taxa	AIV
Uses	FOOS	11	12	52
	FOOO	5	5	8
	FIBR	2	2	6
	DYES	2	2	4
	WOOD	3	3	3
	FOOF	2	2	2
	HERB	2	2	2
Vegetation	CHEN	30	32	80
	SECA	21	22	58
	ARTE	15	16	38
	MOAR	16	17	38
	BIDE	5	5	19
	FEBR	6	6	15
	QUFA	6	6	15
	SCCA	4	4	11
	NACA	5	5	10
	PHRA	5	5	10
	RHPR	4	4	10
	ALNE	5	5	9
	PLAN	3	3	9
	EPIL	3	3	6
	CAKI	2	2	5
	LITT	1	1	4
	TRGE	1	1	4
	ISNA	1	1	2
	OXSP	2	2	2
	SESC	1	1	2
QUER	1	1	1	
SESL	1	1	1	
Mosses	FENS	3	3	6
	MARS	3	3	6
	BOGS	1	1	2
	DUNS	1	1	2
	GRAS	1	1	2

Ecology	FUGE	4	4	10
	CALC	2	2	4
Unclassified	UNCL	20	21	0

Context 754 Sample 754/T No. of taxa 1

	Group	No. taxa	%Taxa	AIV
Vegetation	SECA	1	100	3

Context 994 Sample 121/T No. of taxa 0

no identifiable plant remains

Context 1106 Sample 120/TQ No. of taxa 15

	Group	No. taxa	%Taxa	AIV
Uses	DYES	1	7	6
	WOOD	1	7	1
Vegetation	SCCA	4	27	12
	ARTE	2	13	8
	PHRA	2	13	8
	MOAR	3	20	7
	LITT	2	13	6
	BIDE	2	13	5
	CHEN	2	13	4
	NACA	1	7	4
	SECA	2	13	4
	CHAR	1	7	3
	PLAN	1	7	3
	POTA	1	7	3
	QUFA	2	13	3
	ALNE	1	7	2
	EPIL	1	7	2
	OXSP	1	7	2
	RHPR	1	7	2
	QUER	1	7	1
Ecology	CALC	1	7	4
	FUGE	1	7	1
Unclassified	UNCL	2	13	0

Context 1188 Sample 91188/T No. of taxa 27

	Group	No. taxa	%Taxa	AIV
Uses	FOOS	3	11	9
	DYES	1	4	3
	USEF	1	4	3

	FOOO	1	4	1
Vegetation	CHEN	12	44	34
	ARTE	5	19	13
	SECA	6	22	11
	PHRA	4	15	10
	ASTE	1	4	9
	QUFA	3	11	8
	RHPR	3	11	8
	BIDE	3	11	6
	ALNE	1	4	4
	EPIL	1	4	4
	MOAR	2	7	4
	CHAR	1	4	3
	SESC	1	4	3
	CAKI	1	4	2
	FEBR	1	4	2
	ISNA	1	4	2
	NACA	1	4	2
	SCCA	1	4	2
	BULB	1	4	1
	OXSP	1	4	1
Mosses	BOGS	1	4	3
Ecology	CALC	1	4	2
Unclassified	UNCL	2	7	0

Context 1210 Sample 91210/T No. of taxa 11

	Group	No. taxa	%Taxa	AIV
Uses	FOOS	4	36	24
Vegetation	SECA	3	27	8
	CHEN	2	18	4
	ARTE	1	9	2
	MOAR	1	9	2
Unclassified	UNCL	3	27	0

Context 1214 Sample 91214/T No. of taxa 9

	Group	No. taxa	%Taxa	AIV
Uses	FOOS	2	22	9
Vegetation	CHEN	4	44	9
	SECA	2	22	4
	BIDE	1	11	2
	CAKI	1	11	2
Unclassified	UNCL	3	33	0

Context 2009 Sample 92009/T No. of taxa 2

	Group	No. taxa	%Taxa	AIV
Vegetation	CHEN	2	100	5
	SECA	1	50	2
	ARTE	1	50	1

Appendix 3

Insect data for samples from excavations of the Dominican Friary, Beverley, in context order. For each sample, the archive consists of: (a) a translation of the shorthand input file; (b) main statistics of the assemblage (following Kenward *et al.* (1986) and Hall and Kenward (forthcoming)); (c) species list in rank order; (d) species list in taxonomic order.

BDF86 163 163/t
 Anobium punctatum, (Degeer), 043-.010-.002-, 1, 2, -
 Lathridius minutus group, ,069A.005-.003A, rd, 1, -
 Helophorus sp. A, ,008D.004-.777A, oa-w, 1, small
 Helophorus sp. B, ,008D.004-.777B, oa-w, 2, large
 Ochthebius sp., ,011-.001-.777-, oa-w, 1, -
 Aphodius sp., ,023B.003-.777-, ob-rf, 1, -
 Stenus sp., ,018I.049-.777-, u, 1, -
 Cryptophagus sp., ,059B.004-.777-, rd, 2, -
 Apion sp. A, ,093A.001T.777A, oa-p, 1, large blue
 Falagria caesa or sulcatula, ,018P.125-.003A, rt, 2, -
 Anotylus rugosus, (Fabricius), 018G.046-.010-, rt, 1, -
 Carpelimus sp., ,018G.042-.777-, u, 1, -
 Anotylus nitidulus, (Gravenhorst), 018G.046-.009-, rt-d, 2, -
 Anotylus tetracaratus, (Block), 018G.046-.013-, rt, 2, -
 Platystethus arenarius, (Fourcroy), 018G.045-.002-, rf, 3, -
 Corticaria sp., ,069B.010-.777-, rt, 5, -
 Atomaria sp., ,059C.008-.777-, rd, 1, -
 Cercyon haemorrhoidalis, (Fabricius), 008E.007-.009-, rf, 1, -
 Hydrophilinae sp., ,008F.777-.777-, oa-w, 1, -
 Curculionidae sp., ,094Z.777-.777-, oa, 1, prob sitona
 Apion sp. B, ,093A.001T.777B, oa-p, 1, -
 Elateridae sp., ,035K.777-.777-, ob, 1, -
 Bembidion sp. A, ,001M.023Z.777A, oa, 1, spotted
 Bembidion sp. B, ,001M.023Z.777B, oa, 1, -
 Carabidae sp., ,001Z.777-.777-, ob, 1, not bemb
 Coleoptera sp., ,099-.099-.099-, u, 1, -
 Phyllotreta sp., ,089J.034-.777-, oa-p, 1, black
 Auchenorhyncha sp. A, ,141-.777-.777A, oa-p, 1, -
 Auchenorhyncha sp. B, ,141-.777-.777B, oa-p, 1, -
 Hydroporinae sp., ,005B.777-.777-, oa-w, 1, large
 Aleocharinae sp. A, ,018P.777-.777A, u, 2, big
 Aleocharinae sp. B, ,018P.777-.777B, u, 1, med plain
 Aleocharinae sp. C, ,018P.777-.777C, u, 4, med-small
 Aleocharinae sp. D, ,018P.777-.777D, u, 3, elongate
 Falagria or Cordalia sp., ,018P.125A.777-, rt, 1, -
 Aleocharinae sp. E, ,018P.777-.777E, u, 1, med patterned
 Aleocharinae sp. F, ,018P.777-.777F, u, 1, broad fine punct
 Tachinus laticollis or marginellus, ,018O.095-.008A, u, 1, -
 Lesteva longoelytrata, (Goeze), 018C.011-.003-, oa-d, 1, -
 Omalium ?rivulare, (Paykull), 018C.022-.010-, rt, 1, -
 Lathrobium sp., ,018K.053-.777-, u, 1, small
 ?Xantholinus sp., ,018L.069-.777-, u, 1, -
 *Oligochaeta sp. (egg capsule), ,888-.888-.888-, u, 1, -
 *Acarina sp., ,888-.888-.888-, u, 6, + -
 *Insecta sp. (larva), ,999-.099-.099-, u, 6, + -
 *Diptera sp. (puparium), ,888-.888-.888-, u, 6, + -
 *Hymenoptera Parasitica sp., ,888-.888-.888-, u, 6, + at least 2 spp
 *Heteroptera sp. nymph, ,888-.888-.888-, -, 1, -
 *Trichoptera sp., ,888-.888-.888-, w, 1, -
 *Ostracoda, ,888-.888-.888-, w, 1, -

MAIN STATISTICS FOR ASSEMBLAGE OF COLEOPTERA AND HEMIPTERA

Site: BDF86 Context: 163 Sample: 163/t
 Care! Rather small assemblage, 60 individuals.

Fully quantitative (or estimates for very large numbers only).

Degree of erosion = 3. Degree of fragmentation = 3.

Weight 1 kg so numbers of individuals are concentrations.

Number of individuals estimated at	N = 60
Number of taxa	S = 42
Index of diversity (alpha)	alpha = 62
Standard error of alpha	SE alpha = 16

Number of 'certain' outdoor taxa	SOA = 14
Percentage of 'certain' outdoor taxa	%SOA = 33
Number of 'certain' outdoor individuals	NOA = 15
Percentage of 'certain' outdoor individuals	%NOA = 25
Number of 'certain' and probable outdoor taxa	SOB = 17
Percentage of 'certain' and probable outdoor taxa	%SOB = 40
Number of 'certain' and probable outdoor individuals	NOB = 18
Percentage 'certain' and probable outdoor individuals	%NOB = 30

Diversity index for OB not calculated, NOB = SOB or NOB < 20
 %SOB : %NOB = 1.3

Number of aquatic taxa	SW = 5
Percentage of aquatic taxa	%SW = 12
Number of aquatic individuals	NW = 6
Percentage of aquatic individuals	%NW = 10
Number of damp ground/waterside taxa	SD = 2
Percentage of damp ground/waterside taxa	%SD = 5
Number of damp ground/waterside individuals	ND = 3
Percentage of damp ground/waterside individuals	%ND = 5

Number of strongly plant-associated taxa	SP = 5
Percentage of strongly plant-associated taxa	%SP = 12
Number of strongly plant-associated individuals	NP = 5
Percentage of strongly plant-associated individuals	%NP = 8
Number of heathland/moorland taxa	SM = 0
Percentage of heathland/moorland taxa	%SM = 0
Number of heathland/moorland individuals	NM = 0
Percentage of heathland/moorland individuals	%NM = 0

ND as % NOB	= 17
NW as % NOB	= 33
NP as % NOB	= 28

Number of wood-associated taxa	SL = 1
Number of wood-associated individuals	NL = 2
Percentage of wood-associated individuals	%NL = 3

Number of decomposer taxa	SRT = 13
Percentage of decomposer taxa	%SRT = 31
Number of decomposer individuals	NRT = 23
Percentage of decomposer individuals	%NRT = 38
Number of 'dry' decomposer taxa	SRD = 3
Percentage of 'dry' decomposer taxa	%SRD = 7
Number of 'dry' decomposer individuals	NRD = 4
Percentage of 'dry' decomposer individuals	%NRD = 7
Number of 'foul' decomposer taxa	SRF = 3
Percentage of 'foul' decomposer taxa	%SRF = 7
Number of 'foul' decomposer individuals	NRF = 5
Percentage of 'foul' decomposer individuals	%NRF = 8

Index of diversity of decomposer component	alpha RT = 13
Standard error	SE alpha RT = 5

NRD as % NRT	= 17
NRF as % NRT	= 22

Number of individuals of grain pests	NG = 0
Percentage of individuals of grain pests	%NG = 0

There are 12 uncoded taxa with 18 individuals, 30% of the assemblage.

SPECIES LIST IN RANK ORDER

Site: BDF86 Context: 163 Sample: 163/t

Taxon	Number	%	Rank	Ecodes	Notes
Corticaria sp.	5	8	1	rt	-
Aleocharinae sp. C	4	7	2	u	med-small
Platystethus arenarius (Fourcroy)	3	5	3	rf	-
Aleocharinae sp. D	3	5	3	u	elongate
Helophorus sp. B	2	3	5	oa w	large
Anotylus nitidulus (Gravenhorst)	2	3	5	rt d	-
Anotylus tetracarinatus (Block)	2	3	5	rt	-
Falagria caesa or sulcatula	2	3	5	rt	-
Aleocharinae sp. A	2	3	5	u	big
Anobium punctatum (Degeer)	2	3	5	l	-
Cryptophagus sp.	2	3	5	rd	-
Bembidion sp. A	1	2	12	oa	spotted
Bembidion sp. B	1	2	12	oa	-
Carabidae sp.	1	2	12	ob	not bemb
Hydroporinae sp.	1	2	12	oa w	large
Helophorus sp. A	1	2	12	oa w	small
Cercyon haemorrhoidalis (Fabricius)	1	2	12	rf	-
Hydrophilinae sp.	1	2	12	oa w	-
Ochthebius sp.	1	2	12	oa w	-
Lesteva longoelytrata (Goeze)	1	2	12	oa d	-
Omalium ?rivulare (Paykull)	1	2	12	rt	-
Carpelimus sp.	1	2	12	u	-
Anotylus rugosus (Fabricius)	1	2	12	rt	-
Stenus sp.	1	2	12	u	-
Lathrobium sp.	1	2	12	u	small
?Xantholinus sp.	1	2	12	u	-
Tachinus laticollis or marginellus	1	2	12	u	-
Falagria or Cordalia sp.	1	2	12	rt	-
Aleocharinae sp. B	1	2	12	u	med plain
Aleocharinae sp. E	1	2	12	u	med patter
Aleocharinae sp. F	1	2	12	u	broad fine
Aphodius sp.	1	2	12	ob rf	-
Elateridae sp.	1	2	12	ob	-
Atomaria sp.	1	2	12	rd	-
Lathridius minutus group	1	2	12	rd	-
Phyllotreta sp.	1	2	12	oa p	black
Apion sp. A	1	2	12	oa p	large blue
Apion sp. B	1	2	12	oa p	-
Curculionidae sp.	1	2	12	oa	prob siton
Coleoptera sp.	1	2	12	u	-
Auchenorhyncha sp. A	1	2	12	oa p	-
Auchenorhyncha sp. B	1	2	12	oa p	-

SPECIES LIST IN TAXONOMIC ORDER

Site: BDF86 Context: 163 Sample: 163/t

Taxon	Number	%	Rank	Ecodes	Notes
Bembidion sp. A	1	2	12	oa	spotted
Bembidion sp. B	1	2	12	oa	-
Carabidae sp.	1	2	12	ob	not bemb
Hydroporinae sp.	1	2	12	oa w	large
Helophorus sp. A	1	2	12	oa w	small
Helophorus sp. B	2	3	5	oa w	large
Cercyon haemorrhoidalis (Fabricius)	1	2	12	rf	-
Hydrophilinae sp.	1	2	12	oa w	-
Ochthebius sp.	1	2	12	oa w	-
Lesteva longolytrata (Goeze)	1	2	12	oa d	-
Omalium ?rivulare (Paykull)	1	2	12	rt	-
Carpelimus sp.	1	2	12	u	-
Platystethus arenarius (Fourcroy)	3	5	3	rf	-
Anotylus nitidulus (Gravenhorst)	2	3	5	rt d	-
Anotylus rugosus (Fabricius)	1	2	12	rt	-
Anotylus tetracaratus (Block)	2	3	5	rt	-
Stenus sp.	1	2	12	u	-
Lathrobium sp.	1	2	12	u	small
?Xantholinus sp.	1	2	12	u	-
Tachinus laticollis or marginellus	1	2	12	u	-
Falagria caesa or sulcatula	2	3	5	rt	-
Falagria or Cordalia sp.	1	2	12	rt	-
Aleocharinae sp. A	2	3	5	u	big
Aleocharinae sp. B	1	2	12	u	med plain
Aleocharinae sp. C	4	7	2	u	med-small
Aleocharinae sp. D	3	5	3	u	elongate
Aleocharinae sp. E	1	2	12	u	med patter
Aleocharinae sp. F	1	2	12	u	broad fine
Aphodius sp.	1	2	12	ob rf	-
Elateridae sp.	1	2	12	ob	-
Anobium punctatum (Degeer)	2	3	5	l	-
Cryptophagus sp.	2	3	5	rd	-
Atomaria sp.	1	2	12	rd	-
Lathridius minutus group	1	2	12	rd	-
Corticaria sp.	5	8	1	rt	-
Phyllotreta sp.	1	2	12	oa p	black
Apion sp. A	1	2	12	oa p	large blue
Apion sp. B	1	2	12	oa p	-
Curculionidae sp.	1	2	12	oa	prob siton
Coleoptera sp.	1	2	12	u	-
Auchenorhyncha sp. A	1	2	12	oa p	-
Auchenorhyncha sp. B	1	2	12	oa p	-

BDF86 164 164/t
 Orthoperus sp., ,065-.003-.777-,rt,1,-
 Ptenidium sp., ,012-.002-.777-,rt,2,-
 Acrotrichis sp., ,012-.017-.777-,rt,1,-
 Helophorus sp., ,008D.004-.777-,oa-w,2,-
 Anobium punctatum, (Degeer), 043-.010-.002-,1,3,-
 Lathridius minutus group, ,069A.005-.003A,rd,4,-
 Oxyomus sylvestris, (Scopoli), 023B.004-.001-,rt,1,-
 Mycetaea hirta, (Marsham), 067-.002-.001-,rd,1,-
 Micropeplus sp., ,018A.001-.777-,rt,1,-
 Enicmus sp., ,069A.007-.777-,rt,3,-
 Histeridae sp., ,010H.777-.777-,u,1,-
 Clambus sp., ,025-.002-.777-,rt,1,-
 Aphodius sp., ,023B.003-.777-,ob-rf,1,-
 Gracilia minuta, (Fabricius), 087C.015-.001-,1,2,-
 Elateridae sp., ,035K.777-.777-,ob,1,-
 Cryptophagus scutellatus, Newman, 059B.004-.031-,rd,1,-
 Cryptophagus sp. A., ,059B.004-.777A,rd,1,-
 Cryptophagus sp. B., ,059B.004-.777B,rd,8,-
 Corticaria sp. A., ,069B.010-.777A,rt,1,big
 Corticaria sp. B., ,069B.010-.777B,rt,7,med
 Corticaria sp. C., ,069B.010-.777C,rt,1,med
 Corticaria sp. D., ,069B.010-.777D,rt,17,small
 Brachypterus sp., ,053A.002-.777-,oa-p,1,-
 Typhaea stercorea, (Linnaeus), 071-.005-.001-,rd,2,-
 Stenus sp. A., ,018I.049-.777A,u,1,-
 Stenus sp. B., ,018I.049-.777B,u,1,-
 Hydrobius fuscipes, (Linnaeus), 008F.011-.001-,oa-w,1,-
 Ochthebius minimus, (Fabricius), 011-.001-.009-,oa-w,3,-
 Anotylus rugosus, (Fabricius), 018G.046-.010-,rt,2,-
 Anotylus tetracaratus, (Block), 018G.046-.013-,rt,3,-
 Anotylus nitidulus, (Gravenhorst), 018G.046-.009-,rt-d,3,-
 Anotylus complanatus, (Erichson), 018G.046-.002-,rt,1,-
 Platystethus nitens, (Sahlberg), 018G.045-.006-,oa-d,1,-
 Platystethus degener, Mulsant and Rey, 018G.045-.005-,oa-d,1,-
 Anotylus sp., ,018G.046-.777-,rt,1,-
 Platystethus arenarius, (Fourcroy), 018G.045-.002-,rf,1,-
 Aploderus caelatus, (Gravenhorst), 018G.044-.001-,rt,1,-
 Atomaria sp. A., ,059C.008-.777A,rd,1,smaller
 Atomaria sp. B., ,059C.008-.777B,rd,1,larger
 Neobisnius sp., ,018L.070-.777-,u,3,-
 Carpelimus ?bilineatus, Stephens, 018G.042-.001-,rt,1,-
 Ptinus ?fur, (Linnaeus), 044-.009-.003-,rd,2,male female
 Cyphon sp., ,027-.003-.777-,oa-d,1,-
 Chrysomelidae sp., ,089L.777-.777-,oa-p,1,-
 Monotoma sp., ,054B.003-.777-,rt,2,-
 Cercyon haemorrhoidalis, (Fabricius), 008E.007-.009-,rf,2,-
 Anacaena sp., ,008-.013-.777-,oa-w,1,-
 Bembidion lampros, (Herbst), 001M.023C.004-,oa,1,-
 Carabidae sp., ,001Z.777-.777-,ob,1,hd ?pterost
 Apion (Taenapion) urticarium, (Herbst), 093A.001E.015-,oa-p,1,-
 Ceutorhynchus contractus, (Marsham), 094S.078-.010-,oa-p,2,-
 ?Apion sp., ,093A.001T.777-,oa-p,1,note 1
 Omalium ?rivulare, (Paykull), 018C.022-.010-,rt,1,-
 Omalium sp. A., ,018C.022-.777A,rt,1,-
 Omalium sp. B., ,018C.022-.777B,rt,1,-
 Xylodromus sp., ,018C.026-.777-,rt,1,-
 Omaliinae sp., ,018C.777-.777-,u,1,distinctive
 Gyrohypnus fracticornis, (Muller), 018L.068-.003-,rt,1,-
 Aleocharinae sp. A., ,018P.777-.777A,u,8,-
 Aleocharinae sp. B., ,018P.777-.777B,u,1,-
 Aleocharinae sp. C., ,018P.777-.777C,u,1,-
 Aleocharinae sp. D., ,018P.777-.777D,u,1,-
 Aleocharinae sp. E., ,018P.777-.777E,u,1,-

Aleocharinae sp. F., 018P.777-.777F,u,1,-
Aleocharinae sp. G., 018P.777-.777G,u,1,-
Auchenorrhyncha sp. A., 141-.777-.777A,oa-p,1,-
Auchenorrhyncha sp. B., 141-.777-.777B,oa-p,1,-
Auchenorrhyncha sp. C., 141-.777-.777C,oa-p,1,-
Miridae sp., 120-.777-.777-,oa-p,1,distinctive
Lyctocoris campestris, (Fabricius), 118-.007-.001-,rd,1,-
Anthocoris sp., 118-.003-.777-,oa-p,1,-
*Acarina sp., 888-.888-.888-,u,15,+ -
*Daphnia sp. ephippium, 888-.888-.888-,w,3,-
*Hymenoptera Parasitica sp., 888-.888-.888-,u,6,+ -
*Insecta sp. (larva), 999-.099-.099-,u,15,+ -
*Aranae sp., 888-.888-.888-,u,1,-
*Oligochaeta sp. (egg capsule), 888-.888-.888-,u,1,-
*Diptera sp. (puparium), 888-.888-.888-,u,15,+ tubed
*Dermaptera sp., 888-.888-.888-,u,1,-
*Melophagus ovinus, (Linnaeus), 888-.888-.888-,u,1,-
*Siphonaptera sp., 888-.888-.888-,u,1,body seg
*Heteroptera sp. nymph, 888-.888-.888-,-,4,-
+note 1 - not expanded, newly emerged, not urticarium

MAIN STATISTICS FOR ASSEMBLAGE OF COLEOPTERA AND HEMIPTERA

Site: BDF86 Context: 164 Sample: 164/t

Fully quantitative (or estimates for very large numbers only).

Degree of erosion = 2. Degree of fragmentation = 3.

Weight 1 kg so numbers of individuals are concentrations.

Number of individuals estimated at	N = 131
Number of taxa	S = 71
Index of diversity (alpha)	alpha = 63
Standard error of alpha	SE alpha = 10

Number of 'certain' outdoor taxa	SOA = 18
Percentage of 'certain' outdoor taxa	%SOA = 25
Number of 'certain' outdoor individuals	NOA = 22
Percentage of 'certain' outdoor individuals	%NOA = 17
Number of 'certain' and probable outdoor taxa	SOB = 21
Percentage of 'certain' and probable outdoor taxa	%SOB = 30
Number of 'certain' and probable outdoor individuals	NOB = 25
Percentage 'certain' and probable outdoor individuals	%NOB = 19

Index of diversity of outdoor component	alpha OB = 60
Standard error	SE alpha OB = 31
	%SOB : %NOB = 1.5

Number of aquatic taxa	SW = 4
Percentage of aquatic taxa	%SW = 6
Number of aquatic individuals	NW = 7
Percentage of aquatic individuals	%NW = 5
Number of damp ground/waterside taxa	SD = 4
Percentage of damp ground/waterside taxa	%SD = 6
Number of damp ground/waterside individuals	ND = 6
Percentage of damp ground/waterside individuals	%ND = 5

Number of strongly plant-associated taxa	SP = 10
Percentage of strongly plant-associated taxa	%SP = 14
Number of strongly plant-associated individuals	NP = 11
Percentage of strongly plant-associated individuals	%NP = 8
Number of heathland/moorland taxa	SM = 0
Percentage of heathland/moorland taxa	%SM = 0
Number of heathland/moorland individuals	NM = 0
Percentage of heathland/moorland individuals	%NM = 0

ND as % NOB	= 24
NW as % NOB	= 28
NP as % NOB	= 44

Number of wood-associated taxa	SL = 2
Number of wood-associated individuals	NL = 5
Percentage of wood-associated individuals	%NL = 4

Number of decomposer taxa	SRT = 37
Percentage of decomposer taxa	%SRT = 52
Number of decomposer individuals	NRT = 81
Percentage of decomposer individuals	%NRT = 62
Number of 'dry' decomposer taxa	SRD = 10
Percentage of 'dry' decomposer taxa	%SRD = 14
Number of 'dry' decomposer individuals	NRD = 22
Percentage of 'dry' decomposer individuals	%NRD = 17
Number of 'foul' decomposer taxa	SRF = 3
Percentage of 'foul' decomposer taxa	%SRF = 4
Number of 'foul' decomposer individuals	NRF = 4
Percentage of 'foul' decomposer individuals	%NRF = 3

Index of diversity of decomposer component	alpha RT = 27
Standard error	SE alpha RT = 5

NRD as % NRT	= 27
NRF as % NRT	= 5

Number of individuals of grain pests	NG = 0
Percentage of individuals of grain pests	%NG = 0

There are 12 uncoded taxa with 21 individuals, 16% of the assemblage.

SPECIES LIST IN RANK ORDER

Site: BDF86 Context: 164 Sample: 164/t

Taxon	Number	%	Rank	Ecodes	Notes
Corticaria sp. D	17	13	1	rt	small
Aleocharinae sp. A	8	6	2	u	-
Cryptophagus sp. B	8	6	2	rd	-
Corticaria sp. B	7	5	4	rt	med
Lathridius minutus group	4	3	5	rd	-
Ochthebius minimus (Fabricius)	3	2	6	oa w	-
Anotylus nitidulus (Gravenhorst)	3	2	6	rt d	-
Anotylus tetracaratus (Block)	3	2	6	rt	-
Neobisnius sp.	3	2	6	u	-
Anobium punctatum (Degeer)	3	2	6	l	-
Enicmus sp.	3	2	6	rt	-
Helophorus sp.	2	2	12	oa w	-
Cercyon haemorrhoidalis (Fabricius)	2	2	12	rf	-
Ptenidium sp.	2	2	12	rt	-
Anotylus rugosus (Fabricius)	2	2	12	rt	-
Ptinus ?fur (Linnaeus)	2	2	12	rd	male femal
Monotoma sp.	2	2	12	rt	-
Typhaea stercorea (Linnaeus)	2	2	12	rd	-
Gracilia minuta (Fabricius)	2	2	12	l	-
Ceutorhynchus contractus (Marsham)	2	2	12	oa p	-
Bembidion lampros (Herbst)	1	1	21	oa	-
Carabidae sp.	1	1	21	ob	hd ?pteros
Anacaena sp.	1	1	21	oa w	-
Hydrobius fuscipes (Linnaeus)	1	1	21	oa w	-
Histeridae sp.	1	1	21	u	-
Acrotrichis sp.	1	1	21	rt	-
Micropeplus sp.	1	1	21	rt	-
Omalium ?rivulare (Paykull)	1	1	21	rt	-
Omalium sp. A	1	1	21	rt	-
Omalium sp. B	1	1	21	rt	-
Xylodromus sp.	1	1	21	rt	-
Omalinae sp.	1	1	21	u	distinctiv
Carpelimus ?bilineatus Stephens	1	1	21	rt	-
Aploderus caelatus (Gravenhorst)	1	1	21	rt	-
Platystethus arenarius (Fourcroy)	1	1	21	rf	-
Platystethus degener Mulsant and Rey	1	1	21	oa d	-
Platystethus nitens (Sahlberg)	1	1	21	oa d	-
Anotylus complanatus (Erichson)	1	1	21	rt	-
Anotylus sp.	1	1	21	rt	-
Stenus sp. A	1	1	21	u	-
Stenus sp. B	1	1	21	u	-
Gyrophynus fracticornis (Muller)	1	1	21	rt	-
Aleocharinae sp. B	1	1	21	u	-
Aleocharinae sp. C	1	1	21	u	-
Aleocharinae sp. D	1	1	21	u	-
Aleocharinae sp. E	1	1	21	u	-
Aleocharinae sp. F	1	1	21	u	-
Aleocharinae sp. G	1	1	21	u	-
Aphodius sp.	1	1	21	ob rf	-
Oxyomus sylvestris (Scopoli)	1	1	21	rt	-
Clambus sp.	1	1	21	rt	-
Cyphon sp.	1	1	21	oa d	-
Elateridae sp.	1	1	21	ob	-
Brachypterus sp.	1	1	21	oa p	-
Cryptophagus scutellatus Newman	1	1	21	rd	-
Cryptophagus sp. A	1	1	21	rd	-
Atomaria sp. A	1	1	21	rd	smaller

Atomaria sp. B	1	1	21	rd	larger
Orthoperus sp.	1	1	21	rt	-
Mycetaea hirta (Marsham)	1	1	21	rd	-
Corticaria sp. A	1	1	21	rt	big
Corticaria sp. C	1	1	21	rt	med
Chrysomelidae sp.	1	1	21	oa p	-
Apion (Taenapion) urticarium (Herbst)	1	1	21	oa p	-
?Apion sp.	1	1	21	oa p	note 1
Anthocoris sp.	1	1	21	oa p	-
Lyctocoris campestris (Fabricius)	1	1	21	rd	-
Miridae sp.	1	1	21	oa p	distinctiv
Auchenorhyncha sp. A	1	1	21	oa p	-
Auchenorhyncha sp. B	1	1	21	oa p	-
Auchenorhyncha sp. C	1	1	21	oa p	-

SPECIES LIST IN TAXONOMIC ORDER

Site: BDF86 Context: 164 Sample: 164/t

Taxon	Number	%	Rank	Ecodes	Notes
Bembidion lampros (Herbst)	1	1	21	oa	-
Carabidae sp.	1	1	21	ob	hd ?pteros
Anacaena sp.	1	1	21	oa w	-
Helophorus sp.	2	2	12	oa w	-
Cercyon haemorrhoidalis (Fabricius)	2	2	12	rf	-
Hydrobius fuscipes (Linnaeus)	1	1	21	oa w	-
Histeridae sp.	1	1	21	u	-
Ochthebius minimus (Fabricius)	3	2	6	oa w	-
Ptenidium sp.	2	2	12	rt	-
Acrotrichis sp.	1	1	21	rt	-
Micropeplus sp.	1	1	21	rt	-
Omalium ?rivulare (Paykull)	1	1	21	rt	-
Omalium sp. A	1	1	21	rt	-
Omalium sp. B	1	1	21	rt	-
Xylodromus sp.	1	1	21	rt	-
Omalinae sp.	1	1	21	u	distinctiv
Carpelimus ?bilineatus Stephens	1	1	21	rt	-
Aploderus caelatus (Gravenhorst)	1	1	21	rt	-
Platystethus arenarius (Fourcroy)	1	1	21	rf	-
Platystethus degener Mulsant and Rey	1	1	21	oa d	-
Platystethus nitens (Sahlberg)	1	1	21	oa d	-
Anotylus complanatus (Erichson)	1	1	21	rt	-
Anotylus nitidulus (Gravenhorst)	3	2	6	rt d	-
Anotylus rugosus (Fabricius)	2	2	12	rt	-
Anotylus tetracaratus (Block)	3	2	6	rt	-
Anotylus sp.	1	1	21	rt	-
Stenus sp. A	1	1	21	u	-
Stenus sp. B	1	1	21	u	-
Gyrohypnus fracticornis (Muller)	1	1	21	rt	-
Neobisnius sp.	3	2	6	u	-
Aleocharinae sp. A	8	6	2	u	-
Aleocharinae sp. B	1	1	21	u	-
Aleocharinae sp. C	1	1	21	u	-
Aleocharinae sp. D	1	1	21	u	-
Aleocharinae sp. E	1	1	21	u	-
Aleocharinae sp. F	1	1	21	u	-
Aleocharinae sp. G	1	1	21	u	-
Aphodius sp.	1	1	21	ob rf	-
Oxyomus sylvestris (Scopoli)	1	1	21	rt	-
Clambus sp.	1	1	21	rt	-
Cyphon sp.	1	1	21	oa d	-
Elateridae sp.	1	1	21	ob	-
Anobium punctatum (Degeer)	3	2	6	l	-
Ptinus ?fur (Linnaeus)	2	2	12	rd	male femal
Brachypterus sp.	1	1	21	oa p	-
Monotoma sp.	2	2	12	rt	-
Cryptophagus scutellatus Newman	1	1	21	rd	-
Cryptophagus sp. A	1	1	21	rd	-
Cryptophagus sp. B	8	6	2	rd	-
Atomaria sp. A	1	1	21	rd	smaller
Atomaria sp. B	1	1	21	rd	larger
Orthoperus sp.	1	1	21	rt	-
Mycetaea hirta (Marsham)	1	1	21	rd	-
Lathridius minutus group	4	3	5	rd	-
Enicmus sp.	3	2	6	rt	-
Corticaria sp. A	1	1	21	rt	big
Corticaria sp. B	7	5	4	rt	med

Corticaria sp. C	1	1	21	rt	med
Corticaria sp. D	17	13	1	rt	small
Typhaea stercorea (Linnaeus)	2	2	12	rd	-
Gracilia minuta (Fabricius)	2	2	12	l	-
Chrysomelidae sp.	1	1	21	oa p	-
Apion (Taenapion) urticarium (Herbst)	1	1	21	oa p	-
?Apion sp.	1	1	21	oa p	note 1
Ceutorhynchus contractus (Marsham)	2	2	12	oa p	-
Anthocoris sp.	1	1	21	oa p	-
Lycocoris campestris (Fabricius)	1	1	21	rd	-
Miridae sp.	1	1	21	oa p	distinctiv
Auchenorhyncha sp. A	1	1	21	oa p	-
Auchenorhyncha sp. B	1	1	21	oa p	-
Auchenorhyncha sp. C	1	1	21	oa p	-

bdf86 167 167/T
 Mycetaea hirta, (Marsham), 067-.002-.001-, rd, 3, -
 Orthoperus sp., 065-.003-.777-, rt, 4, -
 Anobium punctatum, (Degeer), 043-.010-.002-, l, 10, -
 Lathridius minutus group, 069A.005-.003A, rd, 17, -
 Sitophilus granarius, (Linnaeus), 094O.054-.001-, g, 1, -
 Helophorus sp. A., 008D.004-.777A, oa-w, 1, -
 Helophorus sp. B., 008D.004-.777B, oa-w, 1, large
 Acrotrechis sp., 012-.017-.777-, rt, 3, -
 Ptenidium sp., 012-.002-.777-, rt, 2, -
 Brachypterus sp., 053A.002-.777-, oa-p, 2, -
 Micropeplus sp., 018A.001-.777-, rt, 1, -
 Clambus sp., 025-.002-.777-, rt, 2, -
 Donaciinae sp., 089A.777-.777-, oa-w-p, 1, -
 Aphodius sp., 023B.003-.777-, ob-rf, 3, -
 Enicmus sp., 069A.007-.777-, rt, 3, -
 Gracilia minuta, (Fabricius), 087C.015-.001-, l, 5, -
 Stenus sp., 018I.049-.777-, u, 1, -
 Corylophus cassidoides, (Marsham), 065-.002-.001-, rt, 1, -
 Aploderus caelatus, (Gravenhorst), 018G.044-.001-, rt, 1, -
 Coleoptera sp. A., 099-.099-.099A, u, 1, large
 Atomaria sp. A., 059C.008-.777A, rd, 6, -
 Atomaria sp. B., 059C.008-.777B, rd, 1, -
 Cerambycidae sp., 087E.777-.777-, l, 1, -
 Dienerella sp., 069A.008-.777-, rd, 1, -
 Corticaria sp. A., 069B.010-.777A, rt, 5, -
 Corticaria sp. B., 069B.010-.777B, rt, 1, -
 Corticaria sp. C., 069B.010-.777C, rt, 16, -
 Corticaria sp. D., 069B.010-.777D, rt, 4, -
 Corticaria sp. E., 069B.010-.777E, rt, 2, -
 Corticaria sp. F., 069B.010-.777F, rt, 4, -
 Ochthebius sp., 011-.001-.777-, oa-w, 2, -
 Anthicus floralis/formicarius, 085-.002-.007A, rt, 1, -
 Halticinae sp. A., 089J.777-.777A, oa-p, 1, green
 Phyllotreta nemorum group, 089J.034-.008-, oa-p, 2, -
 Monotoma sp., 054B.003-.777-, rt, 1, -
 Monotoma longicollis, (Gyllenhal), 054B.003-.005-, rt, 1, -
 Cryptopleurum minutum, (Fabricius), 008E.009-.002-, rf, 1, -
 Cercyon atricapillus, (Marsham), 008E.007-.004-, rf, 3, -
 Cercyon analis, (Paykull), 008E.007-.001-, rt, 6, -
 Cercyon haemorrhoidalis, (Fabricius), 008E.007-.009-, rf, 2, -
 Coleoptera sp. B., 099-.099-.099B, u, 1, -
 Elateridae sp., 035K.777-.777-, ob, 1, ?Agriotes
 Cyphon sp., 027-.003-.777-, oa-d, 1, -
 Ptinus fur, (Linnaeus), 044-.009-.003-, rd, 1, -
 Typhaea stercorea, (Linnaeus), 071-.005-.001-, rd, 1, -
 Ephistemus globulus, (Paykull), 059C.010-.001-, rd, 1, -
 Cryptophagus acutangulus, (Gyllenhal), 059B.004-.002-, rd, 3, -
 Cryptophagus sp. A., 059B.004-.777A, rd, 6, -
 Cryptophagus sp. B., 059B.004-.777B, rd, 5, -
 Cryptophagus sp. C., 059B.004-.777C, rd, 1, -
 Pterostichus sp., 001O.027-.777-, ob, 2, ?mel type
 Loricera pilicornis, (Fabricius), 001H.012-.001-, oa, 1, -
 Carabidae sp. A., 001Z.777-.777A, ob, 2, -
 Carabidae sp. B., 001Z.777-.777B, ob, 1, -
 ?Halticinae sp. B., 087J.777-.777B, oa-p, 1, -
 Sitona lineatus, (Linnaeus), 094C.020-.010-, oa-p, 2, -
 Curculionidae sp., 094Z.777-.777-, oa, 2, distinctive
 Ceutorhynchus contractus, (Marsham), 094S.078-.010-, oa-p, 5, -
 Rhynchaenus foliorum, (Muller), 094Y.102-.005-, oa-p, 1, -
 Ceutorhynchus sp. A., 094S.078-.777A, oa-p, 1, green
 Ceutorhynchus sp. B., 094S.078-.777B, oa-p, 2, large
 Lathrobium sp., 018K.053-.777-, u, 2, -
 Dropephylla sp., 018C.018-.777-, u, 1, -

Xylodromus concinnus, (Marsham), 018C.026-.001-, rt, 1, -
 Omalium sp., 018C.022-.777-, rt, 1, -
 Tachyporus sp., 018O.093-.777-, u, 2, -
 Neobisnius sp., 018L.070-.777-, u, 1, -
 Staphylininae sp. A., 018L.777-.777A, u, 1, small
 Carpelimus ?bilineatus, Stephens, 018G.042-.001-, rt, 4, -
 Carpelimus ?fuliginosus, (Gravenhorst), 018G.042-.005-, u, 1, -
 Carpelimus elongatulus, (Erichson), 018G.042-.003-, oa-d, 1, -
 Carpelimus sp., 018G.042-.777-, u, 2, med
 Anotylus tetracaratus, (Block), 018G.046-.013-, rt, 2, -
 Anotylus nitidulus, (Gravenhorst), 018G.046-.009-, rt-d, 5, -
 Anotylus sculpturatus group, 018G.046-.012A, rt, 1, -
 Anotylus rugosus, (Fabricius), 018G.046-.010-, rt, 1, -
 Platystethus arenarius, (Fourcroy), 018G.045-.002-, rf, 2, -
 Philonthus sp. A., 018L.072-.777A, u, 1, med
 Philonthus sp. B., 018L.072-.777B, u, 1, larger
 Staphylininae sp. B., 018L.777-.777B, u, 1, med
 Gyrohypnus angustatus, Stephens, 018L.068-.001-, rt, 1, -
 Leptacinus sp., 018L.064-.777-, rt, 2, -
 Auchenorhyncha sp. A., 141-.777-.777A, oa-p, 1, -
 Auchenorhyncha sp. B., 141-.777-.777B, oa-p, 1, -
 Auchenorhyncha sp. C., 141-.777-.777C, oa-p, 1, -
 Lyctocoris campestris, (Fabricius), 118-.007-.001-, rd, 2, -
 Falagria or Cordalia sp., 018P.125A.777-, rt, 1, -
 Aleocharinae sp. A., 018P.777-.777A, u, 3, -
 Aleocharinae sp. B., 018P.777-.777B, u, 1, -
 Aleocharinae sp. C., 018P.777-.777C, u, 1, -
 Aleocharinae sp. D., 018P.777-.777D, u, 1, -
 Aleocharinae sp. E., 018P.777-.777E, u, 1, -
 Aleocharinae sp. F., 018P.777-.777F, u, 2, -
 Aleocharinae sp. G., 018P.777-.777G, u, 1, -
 Aleocharinae sp. H., 018P.777-.777H, u, 2, -
 Aleocharinae sp. I., 018P.777-.777I, u, 2, -
 +full of planty material some of beetles very pale
 +aleochs arbitrary, done by Epa
 *Daphnia sp. ephippium, 888-.888-.888-, w, 1, -
 *Acarina sp., 888-.888-.888-, u, 15, + -
 *Diptera sp. (adult), 888-.888-.888-, u, 6, + -
 *Aphidoidea sp., 888-.888-.888-, oa, 1, -
 *Aranae sp., 888-.888-.888-, u, 2, -
 *Proctotrupoidea sp., 888-.888-.888-, u, 1, -
 *Bibionidae sp., 888-.888-.888-, u, 1, -
 *Siphonaptera sp., 888-.888-.888-, u, 1, -
 *Diptera sp. (puparium), 888-.888-.888-, u, 6, + -
 *Trichoptera sp., 888-.888-.888-, w, 1, speckled
 *Oligochaeta sp. (egg capsule), 888-.888-.888-, u, 1, -
 *Hymenoptera Parasitica sp., 888-.888-.888-, u, 15, + -
 *Heteroptera sp. nymph, 888-.888-.888-, -, 6, + -
 *Trichodectidae sp., 888-.888-.888-, -, 1, abdomen

MAIN STATISTICS FOR ASSEMBLAGE OF COLEOPTERA AND HEMIPTERA

Site: bdf86 Context: 167 Sample: 167/T

Fully quantitative (or estimates for very large numbers only).

Degree of erosion = 2. Degree of fragmentation = 3.

Weight 1 kg so numbers of individuals are concentrations.

Number of individuals estimated at	N = 219
Number of taxa	S = 96
Index of diversity (alpha)	alpha = 65
Standard error of alpha	SE alpha = 7

Number of 'certain' outdoor taxa	SOA = 20
Percentage of 'certain' outdoor taxa	%SOA = 21
Number of 'certain' outdoor individuals	NOA = 30
Percentage of 'certain' outdoor individuals	%NOA = 14
Number of 'certain' and probable outdoor taxa	SOB = 25
Percentage of 'certain' and probable outdoor taxa	%SOB = 26
Number of 'certain' and probable outdoor individuals	NOB = 39
Percentage 'certain' and probable outdoor individuals	%NOB = 18

Index of diversity of outdoor component	alpha OB = 30
Standard error	SE alpha OB = 9
	%SOB : %NOB = 1.5

Number of aquatic taxa	SW = 4
Percentage of aquatic taxa	%SW = 4
Number of aquatic individuals	NW = 5
Percentage of aquatic individuals	%NW = 2
Number of damp ground/waterside taxa	SD = 3
Percentage of damp ground/waterside taxa	%SD = 3
Number of damp ground/waterside individuals	ND = 7
Percentage of damp ground/waterside individuals	%ND = 3

Number of strongly plant-associated taxa	SP = 13
Percentage of strongly plant-associated taxa	%SP = 14
Number of strongly plant-associated individuals	NP = 21
Percentage of strongly plant-associated individuals	%NP = 10
Number of heathland/moorland taxa	SM = 0
Percentage of heathland/moorland taxa	%SM = 0
Number of heathland/moorland individuals	NM = 0
Percentage of heathland/moorland individuals	%NM = 0

ND as % NOB	= 18
NW as % NOB	= 13
NP as % NOB	= 54

Number of wood-associated taxa	SL = 3
Number of wood-associated individuals	NL = 16
Percentage of wood-associated individuals	%NL = 7

Number of decomposer taxa	SRT = 46
Percentage of decomposer taxa	%SRT = 48
Number of decomposer individuals	NRT = 136
Percentage of decomposer individuals	%NRT = 62
Number of 'dry' decomposer taxa	SRD = 13
Percentage of 'dry' decomposer taxa	%SRD = 14
Number of 'dry' decomposer individuals	NRD = 48
Percentage of 'dry' decomposer individuals	%NRD = 22
Number of 'foul' decomposer taxa	SRF = 5
Percentage of 'foul' decomposer taxa	%SRF = 5
Number of 'foul' decomposer individuals	NRF = 11
Percentage of 'foul' decomposer individuals	%NRF = 5

Index of diversity of decomposer component	alpha RT = 25
Standard error	SE alpha RT = 3

NRD as % NRT	= 35
NRF as % NRT	= 8

Number of individuals of grain pests	NG = 1
Percentage of individuals of grain pests	%NG = 0

There are 22 uncoded taxa with 30 individuals, 14% of the assemblage.

SPECIES LIST IN RANK ORDER

Site: bdf86 Context: 167 Sample: 167/T

Taxon	Number	%	Rank	Ecodes	Notes
Lathridius minutus group	17	8	1	rd	-
Corticaria sp. C	16	7	2	rt	-
Anobium punctatum (Degeer)	10	5	3	l	-
Cercyon analis (Paykull)	6	3	4	rt	-
Cryptophagus sp. A	6	3	4	rd	-
Atomaria sp. A	6	3	4	rd	-
Anotylus nitidulus (Gravenhorst)	5	2	7	rt d	-
Cryptophagus sp. B	5	2	7	rd	-
Corticaria sp. A	5	2	7	rt	-
Gracilia minuta (Fabricius)	5	2	7	l	-
Ceutorhynchus contractus (Marsham)	5	2	7	oa p	-
Carpelimus ?bilineatus Stephens	4	2	12	rt	-
Orthoperus sp.	4	2	12	rt	-
Corticaria sp. D	4	2	12	rt	-
Corticaria sp. F	4	2	12	rt	-
Cercyon atricapillus (Marsham)	3	1	16	rf	-
Acrotrichis sp.	3	1	16	rt	-
Aleocharinae sp. A	3	1	16	u	-
Aphodius sp.	3	1	16	ob rf	-
Cryptophagus acutangulus (Gyllenhal)	3	1	16	rd	-
Mycetaea hirta (Marsham)	3	1	16	rd	-
Enicmus sp.	3	1	16	rt	-
Pterostichus sp.	2	1	23	ob	?mel type
Carabidae sp. A	2	1	23	ob	-
Cercyon haemorrhoidalis (Fabricius)	2	1	23	rf	-
Ochthebius sp.	2	1	23	oa w	-
Ptenidium sp.	2	1	23	rt	-
Carpelimus sp.	2	1	23	u	med
Platystethus arenarius (Fourcroy)	2	1	23	rf	-
Anotylus tetracaratus (Block)	2	1	23	rt	-
Lathrobium sp.	2	1	23	u	-
Leptacinus sp.	2	1	23	rt	-
Tachyporus sp.	2	1	23	u	-
Aleocharinae sp. F	2	1	23	u	-
Aleocharinae sp. H	2	1	23	u	-
Aleocharinae sp. I	2	1	23	u	-
Clambus sp.	2	1	23	rt	-
Brachypterus sp.	2	1	23	oa p	-
Corticaria sp. E	2	1	23	rt	-
Phyllotreta nemorum group	2	1	23	oa p	-
Sitona lineatus (Linnaeus)	2	1	23	oa p	-
Ceutorhynchus sp. B	2	1	23	oa p	large
Curculionidae sp.	2	1	23	oa	distinctiv
Lyctocoris campestris (Fabricius)	2	1	23	rd	-
Loricera pilicornis (Fabricius)	1	0	45	oa	-
Carabidae sp. B	1	0	45	ob	-
Helophorus sp. A	1	0	45	oa w	-
Helophorus sp. B	1	0	45	oa w	large
Cryptopleurum minutum (Fabricius)	1	0	45	rf	-
Micropeplus sp.	1	0	45	rt	-
Dropephylla sp.	1	0	45	u	-
Omalius sp.	1	0	45	rt	-
Xylodromus concinnus (Marsham)	1	0	45	rt	-
Carpelimus elongatulus (Erichson)	1	0	45	oa d	-
Carpelimus ?fuliginosus (Gravenhorst)	1	0	45	u	-
Aploderus caelatus (Gravenhorst)	1	0	45	rt	-
Anotylus rugosus (Fabricius)	1	0	45	rt	-

Anotylus sculpturatus group	1	0	45	rt	-
Stenus sp.	1	0	45	u	-
Gyrophypnus angustatus Stephens	1	0	45	rt	-
Neobisnius sp.	1	0	45	u	-
Philonthus sp. A	1	0	45	u	med
Philonthus sp. B	1	0	45	u	larger
Staphylininae sp. A	1	0	45	u	small
Staphylininae sp. B	1	0	45	u	med
Falagria or Cordalia sp.	1	0	45	rt	-
Aleocharinae sp. B	1	0	45	u	-
Aleocharinae sp. C	1	0	45	u	-
Aleocharinae sp. D	1	0	45	u	-
Aleocharinae sp. E	1	0	45	u	-
Aleocharinae sp. G	1	0	45	u	-
Cyphon sp.	1	0	45	oa d	-
Elateridae sp.	1	0	45	ob	?Agriotes
Ptinus fur (Linnaeus)	1	0	45	rd	-
Monotoma longicollis (Gyllenhal)	1	0	45	rt	-
Monotoma sp.	1	0	45	rt	-
Cryptophagus sp. C	1	0	45	rd	-
Atomaria sp. B	1	0	45	rd	-
Ephistemus globulus (Paykull)	1	0	45	rd	-
Corylophus cassidoides (Marsham)	1	0	45	rt	-
Dienerella sp.	1	0	45	rd	-
Corticaria sp. B	1	0	45	rt	-
Typhaea stercorea (Linnaeus)	1	0	45	rd	-
Anthicus floralis/formicarius	1	0	45	rt	-
Cerambycidae sp.	1	0	45	l	-
?Halticinae sp. B	1	0	45	oa p	-
Donaciinae sp.	1	0	45	oa w p	-
Halticinae sp. A	1	0	45	oa p	green
Sitophilus granarius (Linnaeus)	1	0	45	g	-
Ceutorhynchus sp. A	1	0	45	oa p	green
Rhynchaenus foliorum (Muller)	1	0	45	oa p	-
Coleoptera sp. A	1	0	45	u	large
Coleoptera sp. B	1	0	45	u	-
Auchenorhyncha sp. A	1	0	45	oa p	-
Auchenorhyncha sp. B	1	0	45	oa p	-
Auchenorhyncha sp. C	1	0	45	oa p	-

SPECIES LIST IN TAXONOMIC ORDER

Site: bdf86 Context: 167 Sample: 167/T

Taxon	Number	%	Rank	Ecodes	Notes
Loricera pilicornis (Fabricius)	1	0	45	oa	-
Pterostichus sp.	2	1	23	ob	?mel type
Carabidae sp. A	2	1	23	ob	-
Carabidae sp. B	1	0	45	ob	-
Helophorus sp. A	1	0	45	oa w	-
Helophorus sp. B	1	0	45	oa w	large
Cercyon analis (Paykull)	6	3	4	rt	-
Cercyon atricapillus (Marsham)	3	1	16	rf	-
Cercyon haemorrhoidalis (Fabricius)	2	1	23	rf	-
Cryptopleurum minutum (Fabricius)	1	0	45	rf	-
Ochthebius sp.	2	1	23	oa w	-
Ptenidium sp.	2	1	23	rt	-
Acrotrichis sp.	3	1	16	rt	-
Micropeplus sp.	1	0	45	rt	-
Dropephylla sp.	1	0	45	u	-
Omalium sp.	1	0	45	rt	-
Xylodromus concinnus (Marsham)	1	0	45	rt	-
Carpelimus ?bilineatus Stephens	4	2	12	rt	-
Carpelimus elongatulus (Erichson)	1	0	45	oa d	-
Carpelimus ?fuliginosus (Gravenhorst)	1	0	45	u	-
Carpelimus sp.	2	1	23	u	med
Aploderus caelatus (Gravenhorst)	1	0	45	rt	-
Platystethus arenarius (Fourcroy)	2	1	23	rf	-
Anotylus nitidulus (Gravenhorst)	5	2	7	rt d	-
Anotylus rugosus (Fabricius)	1	0	45	rt	-
Anotylus sculpturatus group	1	0	45	rt	-
Anotylus tetracarينات (Block)	2	1	23	rt	-
Stenus sp.	1	0	45	u	-
Lathrobium sp.	2	1	23	u	-
Leptacinus sp.	2	1	23	rt	-
Gyrophynus angustatus Stephens	1	0	45	rt	-
Neobisnius sp.	1	0	45	u	-
Philonthus sp. A	1	0	45	u	med
Philonthus sp. B	1	0	45	u	larger
Staphylininae sp. A	1	0	45	u	small
Staphylininae sp. B	1	0	45	u	med
Tachyporus sp.	2	1	23	u	-
Falagria or Cordalia sp.	1	0	45	rt	-
Aleocharinae sp. A	3	1	16	u	-
Aleocharinae sp. B	1	0	45	u	-
Aleocharinae sp. C	1	0	45	u	-
Aleocharinae sp. D	1	0	45	u	-
Aleocharinae sp. E	1	0	45	u	-
Aleocharinae sp. F	2	1	23	u	-
Aleocharinae sp. G	1	0	45	u	-
Aleocharinae sp. H	2	1	23	u	-
Aleocharinae sp. I	2	1	23	u	-
Aphodius sp.	3	1	16	ob rf	-
Clambus sp.	2	1	23	rt	-
Cyphon sp.	1	0	45	oa d	-
Elateridae sp.	1	0	45	ob	?Agriotes
Anobium punctatum (Degeer)	10	5	3	l	-
Ptinus fur (Linnaeus)	1	0	45	rd	-
Brachypterus sp.	2	1	23	oa p	-
Monotoma longicollis (Gyllenhal)	1	0	45	rt	-
Monotoma sp.	1	0	45	rt	-
Cryptophagus acutangulus (Gyllenhal)	3	1	16	rd	-

Cryptophagus sp. A	6	3	4	rd	-
Cryptophagus sp. B	5	2	7	rd	-
Cryptophagus sp. C	1	0	45	rd	-
Atomaria sp. A	6	3	4	rd	-
Atomaria sp. B	1	0	45	rd	-
Ephistemus globulus (Paykull)	1	0	45	rd	-
Corylophus cassidoides (Marsham)	1	0	45	rt	-
Orthoperus sp.	4	2	12	rt	-
Mycetaea hirta (Marsham)	3	1	16	rd	-
Lathridius minutus group	17	8	1	rd	-
Enicmus sp.	3	1	16	rt	-
Dienerella sp.	1	0	45	rd	-
Corticaria sp. A	5	2	7	rt	-
Corticaria sp. B	1	0	45	rt	-
Corticaria sp. C	16	7	2	rt	-
Corticaria sp. D	4	2	12	rt	-
Corticaria sp. E	2	1	23	rt	-
Corticaria sp. F	4	2	12	rt	-
Typhaea stercorea (Linnaeus)	1	0	45	rd	-
Anthicus floralis/formicarius	1	0	45	rt	-
Gracilia minuta (Fabricius)	5	2	7	l	-
Cerambycidae sp.	1	0	45	l	-
?Halticinae sp. B	1	0	45	oa p	-
Donaciinae sp.	1	0	45	oa w p	-
Phyllotreta nemorum group	2	1	23	oa p	-
Halticinae sp. A	1	0	45	oa p	green
Sitona lineatus (Linnaeus)	2	1	23	oa p	-
Sitophilus granarius (Linnaeus)	1	0	45	g	-
Ceutorhynchus contractus (Marsham)	5	2	7	oa p	-
Ceutorhynchus sp. A	1	0	45	oa p	green
Ceutorhynchus sp. B	2	1	23	oa p	large
Rhynchaenus foliorum (Muller)	1	0	45	oa p	-
Curculionidae sp.	2	1	23	oa	distinctiv
Coleoptera sp. A	1	0	45	u	large
Coleoptera sp. B	1	0	45	u	-
Lyctocoris campestris (Fabricius)	2	1	23	rd	-
Auchenorhyncha sp. A	1	0	45	oa p	-
Auchenorhyncha sp. B	1	0	45	oa p	-
Auchenorhyncha sp. C	1	0	45	oa p	-

BDF86 185 185/t
 Lathridius minutus group, .069A.005-.003A,rd,5,-
 Acrotrichis sp., .012-.017-.777-,rt,5,-
 Ptenidium sp., .012-.002-.777-,rt,1,-
 Helophorus sp. A, .008D.004-.777A,oa-w,1,-
 Helophorus sp. B, .008D.004-.777B,oa-w,1,-
 Mycetaea hirta, (Marsham), .067-.002-.001-,rd,1,-
 Atomaria sp., .059C.008-.777-,rd,1,-
 Donaciinae sp., .089A.777-.777-,oa-w-p,1,-
 Ptinidae sp., .044-.777-.777-,rd,1,-
 Anobium punctatum, (Degeer), .043-.010-.002-,1,3,-
 Falagria caesa or sulcatula, .018P.125-.003A,rt,13,-
 Stenus sp., .018I.049-.777-,u,4,-
 Monotoma picipes, Herbst, .054B.003-.006-,rt,1,-
 Aphodius sp. A, .023B.003-.777A,ob-rf,1,-
 Aphodius sp. B, .023B.003-.777B,ob-rf,1,-
 Aleocharinae sp. A, .018P.777-.777A,u,1,staight patterned
 Aleocharinae sp. B, .018P.777-.777B,u,5,twiddly patterned
 Aleocharinae sp. C, .018P.777-.777C,u,3,tidious medium
 Aleocharinae sp. D, .018P.777-.777D,u,1,dark elongate
 Aleocharinae sp. E, .018P.777-.777E,u,5,smallish
 Aleocharinae sp. F, .018P.777-.777F,u,3,coarse punct glossy
 Cercyon analis, (Paykull), .008E.007-.001-,rt,8,-
 Cercyon ustulatus, (Preyssler), .008E.007-.022-,oa-d,2,-
 Cercyon atricapillus, (Marsham), .008E.007-.004-,rf,4,-
 Cryptophagus sp. R, .059B.004-.777R,rd,1,-
 Cryptophagus sp. A, .059B.004-.777A,rd,1,-
 Corticaria ?punctulata, Marsham, .069B.010-.012-,rt,2,-
 Corticaria sp. A, .069B.010-.777A,rt,2,med
 Corticaria sp. B, .069B.010-.777B,rt,7,elongate
 Corticaria sp. C, .069B.010-.777C,rt,2,med-small
 Rhinoncus sp., .094S.081-.777-,oa-p,1,-
 Bagous sp., .094R.059-.777-,oa-w,1,-
 Lathridiidae sp., .069C.777-.777-,rt,1,-
 Colymbetinae sp., .005C.777-.777-,oa-w,1,patterned
 Aglenus brunneus, (Gyllenhal), .072-.002-.001-,rt,1,-
 ?Phyllopertha horticola, (Linnaeus), .023F.017-.001-,oa-p,1,leg frag
 Silpha atrata, Linnaeus, .015-.007-.001-,u,1,-
 Halticinae sp., .089J.777-.777-,oa-p,1,-
 Auchenorhyncha sp., .141-.777-.777-,oa-p,1,-
 ?Saldula sp., .122-.005-.777-,oa-d,1,-
 Pselaphidae sp., .019H.777-.777-,u,1,small
 Micropeplus fulvus, (Erichson), .018A.001-.002-,rt,2,-
 Apion sp., .093A.001T.777-,oa-p,1,-
 Gyrohypnus fracticornis, (Muller), .018L.068-.003-,rt,2,-
 Gyrohypnus angustatus, Stephens, .018L.068-.001-,rt,1,-
 Paederinae sp., .018K.777-.777-,u,1,-
 Stenus sp. A, .018I.049-.777A,u,1,-
 Stenus sp. B, .018I.049-.777B,u,1,-
 Neobisnius sp., .018L.070-.777-,u,7,-
 Omalium excavatum, Stephens, .018C.022-.003-,rt,1,-
 Omalium caesum or italicum, .018C.022-.005A,rt,2,-
 Xylodromus concinnus, (Marsham), .018C.026-.001-,rt,1,-
 Philonthus or Gabrius sp., .018L.074A.777-,u,2,-
 Philonthus sp., .018L.072-.777-,u,1,small
 Philonthus or Quedius sp., .018L.084A.777-,u,1,-
 Carpelimus bilineatus, Stephens, .018G.042-.001-,rt,4,-
 Carpelimus pusillus group, .018G.042-.010A,u,4,-
 Carpelimus fuliginosus, (Gravenhorst), .018G.042-.005-,u,7,-
 Carpelimus ?corticinus, (Gravenhorst), .018G.042-.002-,oa-d,2,-
 Anotylus complanatus, (Erichson), .018G.046-.002-,rt,1,-
 Anotylus rugosus, (Fabricius), .018G.046-.010-,rt,1,-
 Platystethus arenarius, (Fourcroy), .018G.045-.002-,rf,4,-
 Anotylus nitidulus, (Gravenhorst), .018G.046-.009-,rt-d,2,-

Platystethus nitens, (Sahlberg), 018G.045-.006-.0a-d,4,-
Staphylininae sp., 018L.777-.777-,u,1,-
*Bibionidae sp., 888-.888-.888-,u,6,+ -
+modern fly contamination
*Diptera sp. (puparium), 888-.888-.888-,u,15,+ tubed
*Diptera sp. (adult), 888-.888-.888-,u,15,+ sev spp
*Hemiptera sp. (nymph), 888-.888-.888-,u,1,-
*Aranae sp., 888-.888-.888-,u,2,-
*Thysanoptera sp., 888-.888-.888-,u,1,-
*Proctotrupoidea sp., 888-.888-.888-,u,1,-
*Louse (s.l.) sp., 888-.888-.888-,u,1,-
*Anoplura sp., 888-.888-.888-, -,1,-
*Heteroptera sp. nymph, 888-.888-.888-, -,1,-
*Hymenoptera Parasitica sp., 888-.888-.888-,u,1,-
*Oligochaeta sp. (egg capsule), 888-.888-.888-,u,1,-
*Siphonaptera sp., 888-.888-.888-,u,1, body seg
*Acarina sp., 888-.888-.888-,u,15,+ -
*Ceriodaphnia sp. ehippium, 888-.888-.888-,w,1,-
*Melophagus ovinus, (Linnaeus), 888-.888-.888-,u,2,-

MAIN STATISTICS FOR ASSEMBLAGE OF COLEOPTERA AND HEMIPTERA

Site: BDF86 Context: 185 Sample: 185/t

Fully quantitative (or estimates for very large numbers only).

Degree of erosion = 2. Degree of fragmentation = 3.

Weight 1 kg so numbers of individuals are concentrations.

Number of individuals estimated at	N = 152
Number of taxa	S = 65
Index of diversity (alpha)	alpha = 43
Standard error of alpha	SE alpha = 6

Number of 'certain' outdoor taxa	SOA = 14
Percentage of 'certain' outdoor taxa	%SOA = 22
Number of 'certain' outdoor individuals	NOA = 19
Percentage of 'certain' outdoor individuals	%NOA = 13
Number of 'certain' and probable outdoor taxa	SOB = 16
Percentage of 'certain' and probable outdoor taxa	%SOB = 25
Number of 'certain' and probable outdoor individuals	NOB = 21
Percentage 'certain' and probable outdoor individuals	%NOB = 14

Index of diversity of outdoor component	alpha OB = 32
Standard error	SE alpha OB = 16
	%SOB : %NOB = 1.8

Number of aquatic taxa	SW = 5
Percentage of aquatic taxa	%SW = 8
Number of aquatic individuals	NW = 5
Percentage of aquatic individuals	%NW = 3
Number of damp ground/waterside taxa	SD = 5
Percentage of damp ground/waterside taxa	%SD = 8
Number of damp ground/waterside individuals	ND = 11
Percentage of damp ground/waterside individuals	%ND = 7

Number of strongly plant-associated taxa	SP = 6
Percentage of strongly plant-associated taxa	%SP = 9
Number of strongly plant-associated individuals	NP = 6
Percentage of strongly plant-associated individuals	%NP = 4
Number of heathland/moorland taxa	SM = 0
Percentage of heathland/moorland taxa	%SM = 0
Number of heathland/moorland individuals	NM = 0
Percentage of heathland/moorland individuals	%NM = 0

ND as % NOB	= 52
NW as % NOB	= 24
NP as % NOB	= 29

Number of wood-associated taxa	SL = 1
Number of wood-associated individuals	NL = 3
Percentage of wood-associated individuals	%NL = 2

Number of decomposer taxa	SRT = 31
Percentage of decomposer taxa	%SRT = 48
Number of decomposer individuals	NRT = 80
Percentage of decomposer individuals	%NRT = 53
Number of 'dry' decomposer taxa	SRD = 6
Percentage of 'dry' decomposer taxa	%SRD = 9
Number of 'dry' decomposer individuals	NRD = 10
Percentage of 'dry' decomposer individuals	%NRD = 7
Number of 'foul' decomposer taxa	SRF = 4
Percentage of 'foul' decomposer taxa	%SRF = 6
Number of 'foul' decomposer individuals	NRF = 10
Percentage of 'foul' decomposer individuals	%NRF = 7

Index of diversity of decomposer component	alpha RT = 19
Standard error	SE alpha RT = 3

NRD as % NRT	= 13
NRF as % NRT	= 13

Number of individuals of grain pests	NG = 0
Percentage of individuals of grain pests	%NG = 0

There are 19 uncoded taxa with 50 individuals, 33% of the assemblage.

SPECIES LIST IN RANK ORDER

Site: BDF86 Context: 185 Sample: 185/t

Taxon	Number	%	Rank	Ecodes	Notes
Falagria caesa or sulcatula	13	9	1	rt	-
Cercyon analis (Paykull)	8	5	2	rt	-
Carpelimus fuliginosus (Gravenhorst)	7	5	3	u	-
Neobisnius sp.	7	5	3	u	-
Corticaria sp. B	7	5	3	rt	elongate
Acrotrichis sp.	5	3	6	rt	-
Aleocharinae sp. B	5	3	6	u	twiddly pa
Aleocharinae sp. E	5	3	6	u	smallish
Lathridius minutus group	5	3	6	rd	-
Cercyon atricapillus (Marsham)	4	3	10	rf	-
Carpelimus bilineatus Stephens	4	3	10	rt	-
Carpelimus pusillus group	4	3	10	u	-
Platystethus arenarius (Fourcroy)	4	3	10	rf	-
Platystethus nitens (Sahlberg)	4	3	10	oa d	-
Stenus sp.	4	3	10	u	-
Aleocharinae sp. C	3	2	16	u	tedious me
Aleocharinae sp. F	3	2	16	u	coarse pun
Anobium punctatum (Degeer)	3	2	16	l	-
Cercyon ustulatus (Preyssler)	2	1	19	oa d	-
Micropeplus fulvus (Erichson)	2	1	19	rt	-
Omalium caesum or italicum	2	1	19	rt	-
Carpelimus ?corticinus (Gravenhorst)	2	1	19	oa d	-
Anotylus nitidulus (Gravenhorst)	2	1	19	rt d	-
Gyrophypnus fracticornis (Muller)	2	1	19	rt	-
Philonthus or Gabrius sp.	2	1	19	u	-
Corticaria ?punctulata Marsham	2	1	19	rt	-
Corticaria sp. A	2	1	19	rt	med
Corticaria sp. C	2	1	19	rt	med-small
Colymbetinae sp.	1	1	29	oa w	patterned
Helophorus sp. A	1	1	29	oa w	-
Helophorus sp. B	1	1	29	oa w	-
Ptenidium sp.	1	1	29	rt	-
Silpha atrata Linnaeus	1	1	29	u	-
Omalium excavatum Stephens	1	1	29	rt	-
Xylodromus concinnus (Marsham)	1	1	29	rt	-
Anotylus complanatus (Erichson)	1	1	29	rt	-
Anotylus rugosus (Fabricius)	1	1	29	rt	-
Stenus sp. A	1	1	29	u	-
Stenus sp. B	1	1	29	u	-
Paederinae sp.	1	1	29	u	-
Gyrophypnus angustatus Stephens	1	1	29	rt	-
Philonthus sp.	1	1	29	u	small
Philonthus or Quedius sp.	1	1	29	u	-
Staphylininae sp.	1	1	29	u	-
Aleocharinae sp. A	1	1	29	u	staight pa
Aleocharinae sp. D	1	1	29	u	dark elong
Pselaphidae sp.	1	1	29	u	small
Aphodius sp. A	1	1	29	ob rf	-
Aphodius sp. B	1	1	29	ob rf	-
?Phyllopertha horticola (Linnaeus)	1	1	29	oa p	leg frag
Ptinidae sp.	1	1	29	rd	-
Monotoma picipes Herbst	1	1	29	rt	-
Cryptophagus sp. A	1	1	29	rd	-
Cryptophagus sp. R	1	1	29	rd	-
Atomaria sp.	1	1	29	rd	-
Mycetaea hirta (Marsham)	1	1	29	rd	-
Lathridiidae sp.	1	1	29	rt	-

Aglenus brunneus (Gyllenhal)	1	1	29	rt	-
Donaciinae sp.	1	1	29	oa w p	-
Halticinae sp.	1	1	29	oa p	-
Apion sp.	1	1	29	oa p	-
Bagous sp.	1	1	29	oa w	-
Rhinoncus sp.	1	1	29	oa p	-
?Saldula sp.	1	1	29	oa d	-
Auchenorhyncha sp.	1	1	29	oa p	-

SPECIES LIST IN TAXONOMIC ORDER

Site: BDF86 Context: 185 Sample: 185/t

Taxon	Number	%	Rank	Ecodes	Notes
Colymbetinae sp.	1	1	29	oa w	patterned
Helophorus sp. A	1	1	29	oa w	-
Helophorus sp. B	1	1	29	oa w	-
Cercyon analis (Paykull)	8	5	2	rt	-
Cercyon atricapillus (Marsham)	4	3	10	rf	-
Cercyon ustulatus (Preyssler)	2	1	19	oa d	-
Ptenidium sp.	1	1	29	rt	-
Acrotrichis sp.	5	3	6	rt	-
Silpha atrata Linnaeus	1	1	29	u	-
Micropeplus fulvus (Erichson)	2	1	19	rt	-
Omalius excavatum Stephens	1	1	29	rt	-
Omalius caesum or italicum	2	1	19	rt	-
Xylodromus concinnus (Marsham)	1	1	29	rt	-
Carpelimus bilineatus Stephens	4	3	10	rt	-
Carpelimus ?corticinus (Gravenhorst)	2	1	19	oa d	-
Carpelimus fuliginosus (Gravenhorst)	7	5	3	u	-
Carpelimus pusillus group	4	3	10	u	-
Platystethus arenarius (Fourcroy)	4	3	10	rf	-
Platystethus nitens (Sahlberg)	4	3	10	oa d	-
Anotylus complanatus (Erichson)	1	1	29	rt	-
Anotylus nitidulus (Gravenhorst)	2	1	19	rt d	-
Anotylus rugosus (Fabricius)	1	1	29	rt	-
Stenus sp.	4	3	10	u	-
Stenus sp. A	1	1	29	u	-
Stenus sp. B	1	1	29	u	-
Paederinae sp.	1	1	29	u	-
Gyrophypnus angustatus Stephens	1	1	29	rt	-
Gyrophypnus fracticornis (Muller)	2	1	19	rt	-
Neobisnius sp.	7	5	3	u	-
Philonthus sp.	1	1	29	u	small
Philonthus or Gabrius sp.	2	1	19	u	-
Philonthus or Quedius sp.	1	1	29	u	-
Staphylininae sp.	1	1	29	u	-
Falagria caesa or sulcatula	13	9	1	rt	-
Aleocharinae sp. A	1	1	29	u	staight pa
Aleocharinae sp. B	5	3	6	u	twiddly pa
Aleocharinae sp. C	3	2	16	u	tedious me
Aleocharinae sp. D	1	1	29	u	dark elong
Aleocharinae sp. E	5	3	6	u	smallish
Aleocharinae sp. F	3	2	16	u	coarse pun
Pselaphidae sp.	1	1	29	u	small
Aphodius sp. A	1	1	29	ob rf	-
Aphodius sp. B	1	1	29	ob rf	-
?Phyllopertha horticola (Linnaeus)	1	1	29	oa p	leg frag
Anobium punctatum (Degeer)	3	2	16	l	-
Ptinidae sp.	1	1	29	rd	-
Monotoma picipes Herbst	1	1	29	rt	-
Cryptophagus sp. A	1	1	29	rd	-
Cryptophagus sp. R	1	1	29	rd	-
Atomaria sp.	1	1	29	rd	-
Mycetaea hirta (Marsham)	1	1	29	rd	-
Lathridius minutus group	5	3	6	rd	-
Corticaria ?punctulata Marsham	2	1	19	rt	-
Corticaria sp. A	2	1	19	rt	med
Corticaria sp. B	7	5	3	rt	elongate
Corticaria sp. C	2	1	19	rt	med-small
Lathridiidae sp.	1	1	29	rt	-

Aglenus brunneus (Gyllenhal)	1	1	29	rt	-
Donaciinae sp.	1	1	29	oa w p	-
Halticinae sp.	1	1	29	oa p	-
Apion sp.	1	1	29	oa p	-
Bagous sp.	1	1	29	oa w	-
Rhinoncus sp.	1	1	29	oa p	-
?Saldula sp.	1	1	29	oa d	-
Auchenorhyncha sp.	1	1	29	oa p	-

Aglenus brunneus, (Gyllenhal), 072-.002-.001-, rt, 1, -
Lathridius minutus group, ,069A.005-.003A, rd, 8, -
Gracilia minuta, (Fabricius), 087C.015-.001-, 1, 2, -
Ptenidium sp., ,012-.002-.777-, rt, 1, -
Acrotrichis sp. A., ,012-.017-.777A, rt, 3, -
Acrotrichis sp. B., ,012-.017-.777B, rt, 2, -
Aphodius sp. A., ,023B.003-.777A, ob-rf, 1, -
Anobium punctatum, (Degeer), 043-.010-.002-, 1, 5, -
Corticaria sp. A., ,069B.010-.777A, rt, 2, -
Corticaria sp. B., ,069B.010-.777B, rt, 1, -
Clambus sp., ,025-.002-.777-, rt, 1, -
Cercyon analis, (Paykull), 008E.007-.001-, rt, 6, -
Cercyon atricapillus, (Marsham), 008E.007-.004-, rf, 2, -
Cercyon haemorrhoidalis, (Fabricius), 008E.007-.009-, rf, 1, -
Cercyon sp., ,008E.007-.777-, u, 1, -
Cercyon ?quisquilius, (Linnaeus), 008E.007-.017-, rf, 1, -
Chaetarthria seminulum, (Herbst), 008F.018-.001-, oa-w, 1, -
Anthicus formicarius, (Goeze), 085-.002-.007-, rt, 1, -
Platystethus nitens, (Sahlberg), 018G.045-.006-, oa-d, 2, -
Platystethus degener, Mulsant and Rey, 018G.045-.005-, oa-d, 1, -
Platystethus arenarius, (Fourcroy), 018G.045-.002-, rf, 4, -
Anotylus tetracaratus, (Block), 018G.046-.013-, rt, 1, -
Anotylus nitidulus, (Gravenhorst), 018G.046-.009-, rt-d, 1, -
Anotylus complanatus, (Erichson), 018G.046-.002-, rt, 1, -
Anotylus rugosus, (Fabricius), 018G.046-.010-, rt, 2, -
Anotylus sculpturatus group, ,018G.046-.012A, rt, 1, -
Lyctus linearis, (Goeze), 046-.002-.003-, 1, 1, -
Corylophus cassidoides, (Marsham), 065-.002-.001-, rt, 1, -
Corticaria ?punctulata, Marsham, 069B.010-.012-, rt, 1, -
?Blaps sp., ,073-.001-.777-, rt, 1, -
Carabidae sp. A., ,001Z.777-.777A, ob, 1, -
Carabidae sp. B., ,001Z.777-.777B, ob, 1, -
Bembidion ?lampros or properans, ,001M.023C.005A, oa, 1, -
Cilea silphoides, (Linnaeus), 018O.096-.001-, rt, 1, -
Halticinae sp., ,089J.777-.777-, oa-p, 1, med black
Aphodius sp. B., ,023B.003-.777B, ob-rf, 1, -
Cryptophagus sp. R., ,059B.004-.777R, rd, 1, -
Cryptophagus acutangulus, (Gyllenhal), 059B.004-.002-, rd, 1, -
Ptinus ?fur, (Linnaeus), 044-.009-.003-, rd, 1, -
Helophorus sp., ,008D.004-.777-, oa-w, 1, wrinkled ?new em
Atomaria sp. A., ,059C.008-.777A, rd, 1, larger
Atomaria sp. B., ,059C.008-.777B, rd, 1, smaller
Notaris aethiops, (Fabricius), 094R.063-.002-, oa-p-d, 1, -
Apion sp., ,093A.001T.777-, oa-p, 2, 1 newly em
Curculionidae sp., ,094Z.777-.777-, oa, 1, -
Ceutorhynchus sp., ,094S.078-.777-, oa-p, 1, -
Pselaphidae sp., ,019H.777-.777-, u, 1, -
Coleoptera sp., ,099-.099-.099-, u, 1, -
Auchenorhyncha sp. A., ,141-.777-.777A, oa-p, 1, -
Auchenorhyncha sp. B., ,141-.777-.777B, oa-p, 1, -
Auchenorhyncha sp. C., ,141-.777-.777C, oa-p, 1, -
Auchenorhyncha sp. D., ,141-.777-.777D, oa-p, 1, -
Lygaeidae sp., ,112-.777-.777-, oa-p, 1, -
Heteroptera sp., ,134-.777-.777-, u, 1, -
Carpelimus ?corticinus, (Gravenhorst), 018G.042-.002-, oa-d, 1, -
Carpelimus ?fuliginosus, (Gravenhorst), 018G.042-.005-, u, 1, -
Carpelimus ?bilineatus, Stephens, 018G.042-.001-, rt, 2, -
Carpelimus pusillus group, ,018G.042-.010A, u, 1, -
Olophrum sp., ,018C.006-.777-, oa, 1, -
Omalius sp., ,018C.022-.777-, rt, 1, -
Xylodromus concinnus, (Marsham), 018C.026-.001-, rt, 1, -
Phacophallus parumpunctatus, (Gyllenhal), 018L.065-.001-, rt, 1, -
Gyrophynus fracticornis, (Muller), 018L.068-.003-, rt, 1, -

Philonthus sp.,,018L.072-.777-,u,1,-
Tachyporus sp.,,018O.093-.777-,u,1,-
Philonthus or Quedius sp.,,018L.084A.777-,u,1,-
Aleocharinae sp. A.,,018P.777-.777A,u,1,-
Aleocharinae sp. B.,,018P.777-.777B,u,1,-
Aleocharinae sp. C.,,018P.777-.777C,u,2,-
Falagria caesa or sulcatula,,018P.125-.003A,rt,2,-
?Cordalia obscura,(Gravenhorst),018P.123-.001-,rt,1,-
*Ceriodaphnia sp. ephippium,,888-.888-.888-,w,2,-
*Daphnia sp. ephippium,,888-.888-.888-,w,8,-
*Aranae sp.,,888-.888-.888-,u,6,+ -
*Proctotrupoidea sp.,,888-.888-.888-,u,6,+ -
*Bibionidae sp.,,888-.888-.888-,u,1,-
*Coccoidea sp.,,161A.777-.777-,oa-p,1,MOUNTED
*Diptera sp. (puparium),,888-.888-.888-,u,15,+ TUBED
*Insecta sp. (larva),,999-.099-.099-,u,15,+ -
*Syrphidae sp. (larval spiracular process),,888-.888-.888-,u,2,-
*Acarina sp.,,888-.888-.888-,u,15,+ -
*Dermaptera sp.,,888-.888-.888-,u,1,-
*Pulex irritans,Linnaeus,888-.888-.888-,u,1,hd male gen

MAIN STATISTICS FOR ASSEMBLAGE OF COLEOPTERA AND HEMIPTERA

Site: BDF86 Context: 225 Sample: 134/t

Fully quantitative (or estimates for very large numbers only).

Degree of erosion = 2. Degree of fragmentation = 3.

Weight 1 kg so numbers of individuals are concentrations.

Number of individuals estimated at	N = 102
Number of taxa	S = 71
Index of diversity (alpha)	alpha = 103
Standard error of alpha	SE alpha = 21

Number of 'certain' outdoor taxa	SOA = 17
Percentage of 'certain' outdoor taxa	%SOA = 24
Number of 'certain' outdoor individuals	NOA = 19
Percentage of 'certain' outdoor individuals	%NOA = 19
Number of 'certain' and probable outdoor taxa	SOB = 21
Percentage of 'certain' and probable outdoor taxa	%SOB = 30
Number of 'certain' and probable outdoor individuals	NOB = 23
Percentage 'certain' and probable outdoor individuals	%NOB = 23

Index of diversity of outdoor component	alpha OB = 111
Standard error	SE alpha OB = 76
	%SOB : %NOB = 1.3

Number of aquatic taxa	SW = 2
Percentage of aquatic taxa	%SW = 3
Number of aquatic individuals	NW = 2
Percentage of aquatic individuals	%NW = 2
Number of damp ground/waterside taxa	SD = 5
Percentage of damp ground/waterside taxa	%SD = 7
Number of damp ground/waterside individuals	ND = 6
Percentage of damp ground/waterside individuals	%ND = 6

Number of strongly plant-associated taxa	SP = 9
Percentage of strongly plant-associated taxa	%SP = 13
Number of strongly plant-associated individuals	NP = 10
Percentage of strongly plant-associated individuals	%NP = 10
Number of heathland/moorland taxa	SM = 0
Percentage of heathland/moorland taxa	%SM = 0
Number of heathland/moorland individuals	NM = 0
Percentage of heathland/moorland individuals	%NM = 0

ND as % NOB	= 26
NW as % NOB	= 9
NP as % NOB	= 43

Number of wood-associated taxa	SL = 3
Number of wood-associated individuals	NL = 8
Percentage of wood-associated individuals	%NL = 8

Number of decomposer taxa	SRT = 37
Percentage of decomposer taxa	%SRT = 52
Number of decomposer individuals	NRT = 60
Percentage of decomposer individuals	%NRT = 59
Number of 'dry' decomposer taxa	SRD = 6
Percentage of 'dry' decomposer taxa	%SRD = 8
Number of 'dry' decomposer individuals	NRD = 13
Percentage of 'dry' decomposer individuals	%NRD = 13
Number of 'foul' decomposer taxa	SRF = 6
Percentage of 'foul' decomposer taxa	%SRF = 8
Number of 'foul' decomposer individuals	NRF = 10
Percentage of 'foul' decomposer individuals	%NRF = 10

Index of diversity of decomposer component	alpha RT = 41
Standard error	SE alpha RT = 10

NRD as % NRT	= 22
NRF as % NRT	= 17

Number of individuals of grain pests	NG = 0
Percentage of individuals of grain pests	%NG = 0

There are 12 uncoded taxa with 13 individuals, 13% of the assemblage.

SPECIES LIST IN RANK ORDER

Site: BDF86 Context: 225 Sample: 134/t

Taxon	Number	%	Rank	Ecodes	Notes
Lathridius minutus group	8	8	1	rd	-
Cercyon analis (Paykull)	6	6	2	rt	-
Anobium punctatum (Degeer)	5	5	3	l	-
Platystethus arenarius (Fourcroy)	4	4	4	rf	-
Acrotrichis sp. A	3	3	5	rt	-
Cercyon atricapillus (Marsham)	2	2	6	rf	-
Acrotrichis sp. B	2	2	6	rt	-
Carpelimus ?bilineatus Stephens	2	2	6	rt	-
Platystethus nitens (Sahlberg)	2	2	6	oa d	-
Anotylus rugosus (Fabricius)	2	2	6	rt	-
Falagria caesa or sulcatula	2	2	6	rt	-
Aleocharinae sp. C	2	2	6	u	-
Corticaria sp. A	2	2	6	rt	-
Gracilia minuta (Fabricius)	2	2	6	l	-
Apion sp.	2	2	6	oa p	1 newly em
Bembidion ?lampros or properans	1	1	16	oa	-
Carabidae sp. A	1	1	16	ob	-
Carabidae sp. B	1	1	16	ob	-
Helophorus sp.	1	1	16	oa w	wrinkled ?
Cercyon haemorrhoidalis (Fabricius)	1	1	16	rf	-
Cercyon ?quisquilius (Linnaeus)	1	1	16	rf	-
Cercyon sp.	1	1	16	u	-
Chaetarthria seminulum (Herbst)	1	1	16	oa w	-
Ptenidium sp.	1	1	16	rt	-
Olophrum sp.	1	1	16	oa	-
Omalius sp.	1	1	16	rt	-
Xylodromus concinnus (Marsham)	1	1	16	rt	-
Carpelimus ?corticinus (Gravenhorst)	1	1	16	oa d	-
Carpelimus ?fuliginosus (Gravenhorst)	1	1	16	u	-
Carpelimus pusillus group	1	1	16	u	-
Platystethus degener Mulsant and Rey	1	1	16	oa d	-
Anotylus complanatus (Erichson)	1	1	16	rt	-
Anotylus nitidulus (Gravenhorst)	1	1	16	rt d	-
Anotylus sculpturatus group	1	1	16	rt	-
Anotylus tetracarينات (Block)	1	1	16	rt	-
Phacophallus parumpunctatus (Gyllenhal)	1	1	16	rt	-
Gyrophypnus fracticornis (Muller)	1	1	16	rt	-
Philonthus sp.	1	1	16	u	-
Philonthus or Quedius sp.	1	1	16	u	-
Tachyporus sp.	1	1	16	u	-
Cilea silphoides (Linnaeus)	1	1	16	rt	-
?Cordalia obscura (Gravenhorst)	1	1	16	rt	-
Aleocharinae sp. A	1	1	16	u	-
Aleocharinae sp. B	1	1	16	u	-
Pselaphidae sp.	1	1	16	u	-
Aphodius sp. A	1	1	16	ob rf	-
Aphodius sp. B	1	1	16	ob rf	-
Clambus sp.	1	1	16	rt	-
Ptinus ?fur (Linnaeus)	1	1	16	rd	-
Lyctus linearis (Goeze)	1	1	16	l	-
Cryptophagus acutangulus (Gyllenhal)	1	1	16	rd	-
Cryptophagus sp. R	1	1	16	rd	-
Atomaria sp. A	1	1	16	rd	larger
Atomaria sp. B	1	1	16	rd	smaller
Corylophus cassidoides (Marsham)	1	1	16	rt	-
Corticaria ?punctulata Marsham	1	1	16	rt	-
Corticaria sp. B	1	1	16	rt	-

Aglenus brunneus (Gyllenhal)	1	1	16	rt	-
?Blaps sp.	1	1	16	rt	-
Anthicus formicarius (Goeze)	1	1	16	rt	-
Halticinae sp.	1	1	16	oa p	med black
Notaris aethiops (Fabricius)	1	1	16	oa p d	-
Ceutorhynchus sp.	1	1	16	oa p	-
Curculionidae sp.	1	1	16	oa	-
Coleoptera sp.	1	1	16	u	-
Lygaeidae sp.	1	1	16	oa p	-
Heteroptera sp.	1	1	16	u	-
Auchenorhyncha sp. A	1	1	16	oa p	-
Auchenorhyncha sp. B	1	1	16	oa p	-
Auchenorhyncha sp. C	1	1	16	oa p	-
Auchenorhyncha sp. D	1	1	16	oa p	-

SPECIES LIST IN TAXONOMIC ORDER

Site: BDF86 Context: 225 Sample: 134/t

Taxon	Number	%	Rank	Ecodes	Notes
Bembidion ?lampros or properans	1	1	16	oa	-
Carabidae sp. A	1	1	16	ob	-
Carabidae sp. B	1	1	16	ob	-
Helophorus sp.	1	1	16	oa w	wrinkled ?
Cercyon analis (Paykull)	6	6	2	rt	-
Cercyon atricapillus (Marsham)	2	2	6	rf	-
Cercyon haemorrhoidalis (Fabricius)	1	1	16	rf	-
Cercyon ?quisquilius (Linnaeus)	1	1	16	rf	-
Cercyon sp.	1	1	16	u	-
Chaetarthria seminulum (Herbst)	1	1	16	oa w	-
Ptenidium sp.	1	1	16	rt	-
Acrotrichis sp. A	3	3	5	rt	-
Acrotrichis sp. B	2	2	6	rt	-
Olophrum sp.	1	1	16	oa	-
Omalius sp.	1	1	16	rt	-
Xylodromus concinnus (Marsham)	1	1	16	rt	-
Carpelimus ?bilineatus Stephens	2	2	6	rt	-
Carpelimus ?corticinus (Gravenhorst)	1	1	16	oa d	-
Carpelimus ?fuliginosus (Gravenhorst)	1	1	16	u	-
Carpelimus pusillus group	1	1	16	u	-
Platystethus arenarius (Fourcroy)	4	4	4	rf	-
Platystethus degener Mulsant and Rey	1	1	16	oa d	-
Platystethus nitens (Sahlberg)	2	2	6	oa d	-
Anotylus complanatus (Erichson)	1	1	16	rt	-
Anotylus nitidulus (Gravenhorst)	1	1	16	rt d	-
Anotylus rugosus (Fabricius)	2	2	6	rt	-
Anotylus sculpturatus group	1	1	16	rt	-
Anotylus tetracarينات (Block)	1	1	16	rt	-
Phacophallus parumpunctatus (Gyllenhal)	1	1	16	rt	-
Gyrophypnus fracticornis (Muller)	1	1	16	rt	-
Philonthus sp.	1	1	16	u	-
Philonthus or Quedius sp.	1	1	16	u	-
Tachyporus sp.	1	1	16	u	-
Cilea silphoides (Linnaeus)	1	1	16	rt	-
?Cordalia obscura (Gravenhorst)	1	1	16	rt	-
Falagria caesa or sulcatula	2	2	6	rt	-
Aleocharinae sp. A	1	1	16	u	-
Aleocharinae sp. B	1	1	16	u	-
Aleocharinae sp. C	2	2	6	u	-
Pselaphidae sp.	1	1	16	u	-
Aphodius sp. A	1	1	16	ob rf	-
Aphodius sp. B	1	1	16	ob rf	-
Clambus sp.	1	1	16	rt	-
Anobium punctatum (Degeer)	5	5	3	l	-
Ptinus ?fur (Linnaeus)	1	1	16	rd	-
Lyctus linearis (Goeze)	1	1	16	l	-
Cryptophagus acutangulus (Gyllenhal)	1	1	16	rd	-
Cryptophagus sp. R	1	1	16	rd	-
Atomaria sp. A	1	1	16	rd	larger
Atomaria sp. B	1	1	16	rd	smaller
Corylophus cassidoides (Marsham)	1	1	16	rt	-
Lathridius minutus group	8	8	1	rd	-
Corticaria ?punctulata Marsham	1	1	16	rt	-
Corticaria sp. A	2	2	6	rt	-
Corticaria sp. B	1	1	16	rt	-
Aglenus brunneus (Gyllenhal)	1	1	16	rt	-
?Blaps sp.	1	1	16	rt	-

Anthicus formicarius (Goeze)	1	1	16	rt	-
Gracilia minuta (Fabricius)	2	2	6	l	-
Halticinae sp.	1	1	16	oa p	med black
Apion sp.	2	2	6	oa p	1 newly em
Notaris aethiops (Fabricius)	1	1	16	oa p d	-
Ceutorhynchus sp.	1	1	16	oa p	-
Curculionidae sp.	1	1	16	oa	-
Coleoptera sp.	1	1	16	u	-
Lygaeidae sp.	1	1	16	oa p	-
Heteroptera sp.	1	1	16	u	-
Auchenorhyncha sp. A	1	1	16	oa p	-
Auchenorhyncha sp. B	1	1	16	oa p	-
Auchenorhyncha sp. C	1	1	16	oa p	-
Auchenorhyncha sp. D	1	1	16	oa p	-

bdf86 229 229/T
Helophorus sp. A,,008D.004-.777A,oa-w,1,large
Helophorus sp. B,,008D.004-.777B,oa-w,1,med
Acrottrichis sp.,,012-.017-.777-,rt,1,-
Carabidae sp.,,001Z.777-.777-,ob,1,-
Ptenidium sp.,,012-.002-.777-,rt,3,-
Mycetaea hirta, (Marsham),067-.002-.001-,rd,2,-
Stenus sp. A,,018I.049-.777A,u,1,-
Stenus sp. B,,018I.049-.777B,u,1,-
Lathridius minutus group,,069A.005-.003A,rd,4,-
Clambus sp.,,025-.002-.777-,rt,1,-
Monotoma sp.,,054B.003-.777-,rt,1,-
Sitophilus granarius, (Linnaeus),094O.054-.001-,g,1,-
Aphodius sp.,,023B.003-.777-,ob-rf,1,-
Trioza urticae, (Linnaeus),142-.015-.021-,oa-p,1,-
Tipnus unicolor, (Piller and Mitterpacher),044-.007-.001-,rd,2,-
Ptinus ?fur, (Linnaeus),044-.009-.003-,rd,1,-
Lyctus linearis, (Goeze),046-.002-.003-,l,1,-
Anobium punctatum, (Degeer),043-.010-.002-,l,1,-
Cyphon sp.,,027-.003-.777-,oa-d,1,-
Bruchus ?rufimanus, Boheman,088-.001-.004-,u,3,-
Sphaeridium bipustulatum, Fabricius,008E.006-.001-,rf,2,-
Histerinae sp.,,010F.777-.777-,u,1,-
Coleoptera sp.,,099-.099-.099-,u,1,-
Scydmaenus tarsatus, (Muller & Kunze),016-.008-.002-,rt,1,-
Lygaeidae sp.,,112-.777-.777-,oa-p,1,-
Curculionidae sp.,,094Z.777-.777-,oa,1,scrotty
Cercyon analis, (Paykull),008E.007-.001-,rt,5,2 pale
Cercyon sp.,,008E.007-.777-,u,1,pale
Cercyon terminatus, (Marsham),008E.007-.019-,rf,1,-
Cercyon atricapillus, (Marsham),008E.007-.004-,rf,3,-
Cryptophagus sp. A,,059B.004-.777A,rd,1,-
Cryptophagus sp. B,,059B.004-.777B,rd,1,-
Atomaria sp.,,059C.008-.777-,rd,4,-
Corticaria sp. A,,069B.010-.777A,rt,1,-
Corticaria sp. B,,069B.010-.777B,rt,1,-
Carpelimus ?bilineatus, Stephens,018G.042-.001-,rt,9,-
Carpelimus pusillus group,,018G.042-.010A,u,1,-
Carpelimus fuliginosus, (Gravenhorst),018G.042-.005-,u,5,-
Philonthus sp.,,018L.072-.777-,u,2,large
Staphylininae sp. A,,018L.777-.777A,u,2,large
Staphylininae sp. B,,018L.777-.777B,u,1,small
Neobisnius sp.,,018L.070-.777-,u,3,-
Staphylininae sp. C,,018L.777-.777C,u,1,even smaller
Gyrophypnus fracticornis, (Muller),018L.068-.003-,rt,3,-
Oxytelus sculptus, Gravenhorst,018G.047-.004-,rt,3,-
Anotylus tetracaratus, (Block),018G.046-.013-,rt,1,-
Anotylus rugosus, (Fabricius),018G.046-.010-,rt,2,-
Anotylus sculpturatus group,,018G.046-.012A,rt,1,-
Anotylus nitidulus, (Gravenhorst),018G.046-.009-,rt-d,1,-
Xylodromus concinnus, (Marsham),018C.026-.001-,rt,3,-
Omalium ?rivulare, (Paykull),018C.022-.010-,rt,1,-
Lesteva sp.,,018C.011-.777-,oa-d,1,-
Falagria sp.,,018P.125-.777-,rt,2,-
Aleocharinae sp. A,,018P.777-.777A,u,3,-
Aleocharinae sp. B,,018P.777-.777B,u,2,-
Aleocharinae sp. C,,018P.777-.777C,u,2,-
Aleocharinae sp. D,,018P.777-.777D,u,1,-
Heteroptera sp.,,134-.777-.777-,u,1,wing frag
Auchenorhyncha sp.,,141-.777-.777-,oa-p,1,-
*Acarina sp.,,888-.888-.888-,u,15,+ -
*Hemiptera sp. (nymph),,888-.888-.888-,u,1,-
*Hymenoptera Parasitica sp.,,888-.888-.888-,u,1,-
*Diptera sp. (puparium),,888-.888-.888-,u,15,+ tubed

- *Heteroptera sp. nymph,,888-.888-.888-,-,6,+ -
- *Insecta sp. (larva),,999-.099-.099-,u,15,+ -
- *Diptera sp. (adult),,888-.888-.888-,u,15,+ -
- *Siphonaptera sp.,,888-.888-.888-,u,1,-
- *Daphnia sp. ephippium,,888-.888-.888-,w,7,-
- *Aranae sp.,,888-.888-.888-,u,1,-

MAIN STATISTICS FOR ASSEMBLAGE OF COLEOPTERA AND HEMIPTERA

Site: bdf86 Context: 229 Sample: 229/T

Fully quantitative (or estimates for very large numbers only).

Degree of erosion = 3. Degree of fragmentation = 3.

Weight 1 kg so numbers of individuals are concentrations.

Number of individuals estimated at	N = 106
Number of taxa	S = 59
Index of diversity (alpha)	alpha = 55
Standard error of alpha	SE alpha = 9

Number of 'certain' outdoor taxa	SOA = 8
Percentage of 'certain' outdoor taxa	%SOA = 14
Number of 'certain' outdoor individuals	NOA = 8
Percentage of 'certain' outdoor individuals	%NOA = 8
Number of 'certain' and probable outdoor taxa	SOB = 10
Percentage of 'certain' and probable outdoor taxa	%SOB = 17
Number of 'certain' and probable outdoor individuals	NOB = 10
Percentage 'certain' and probable outdoor individuals	%NOB = 9

Diversity index for OB not calculated, NOB = SOB or NOB < 20
 %SOB : %NOB = 1.8

Number of aquatic taxa	SW = 2
Percentage of aquatic taxa	%SW = 3
Number of aquatic individuals	NW = 2
Percentage of aquatic individuals	%NW = 2
Number of damp ground/waterside taxa	SD = 3
Percentage of damp ground/waterside taxa	%SD = 5
Number of damp ground/waterside individuals	ND = 3
Percentage of damp ground/waterside individuals	%ND = 3

Number of strongly plant-associated taxa	SP = 3
Percentage of strongly plant-associated taxa	%SP = 5
Number of strongly plant-associated individuals	NP = 3
Percentage of strongly plant-associated individuals	%NP = 3
Number of heathland/moorland taxa	SM = 0
Percentage of heathland/moorland taxa	%SM = 0
Number of heathland/moorland individuals	NM = 0
Percentage of heathland/moorland individuals	%NM = 0

ND as % NOB	= 30
NW as % NOB	= 20
NP as % NOB	= 30

Number of wood-associated taxa	SL = 2
Number of wood-associated individuals	NL = 2
Percentage of wood-associated individuals	%NL = 2

Number of decomposer taxa	SRT = 29
Percentage of decomposer taxa	%SRT = 49
Number of decomposer individuals	NRT = 62
Percentage of decomposer individuals	%NRT = 58
Number of 'dry' decomposer taxa	SRD = 7
Percentage of 'dry' decomposer taxa	%SRD = 12
Number of 'dry' decomposer individuals	NRD = 15
Percentage of 'dry' decomposer individuals	%NRD = 14
Number of 'foul' decomposer taxa	SRF = 4
Percentage of 'foul' decomposer taxa	%SRF = 7
Number of 'foul' decomposer individuals	NRF = 7
Percentage of 'foul' decomposer individuals	%NRF = 7

Index of diversity of decomposer component	alpha RT = 21
Standard error	SE alpha RT = 5

NRD as % NRT	= 24
NRF as % NRT	= 11

Number of individuals of grain pests	NG = 1
Percentage of individuals of grain pests	%NG = 1

There are 18 uncoded taxa with 32 individuals, 30% of the assemblage.

SPECIES LIST IN RANK ORDER

Site: bdf86 Context: 229 Sample: 229/T

Taxon	Number	%	Rank	Ecodes	Notes
Carpelimus ?bilineatus Stephens	9	8	1	rt	-
Cercyon analis (Paykull)	5	5	2	rt	2 pale
Carpelimus fuliginosus (Gravenhorst)	5	5	2	u	-
Atomaria sp.	4	4	4	rd	-
Lathridius minutus group	4	4	4	rd	-
Cercyon atricapillus (Marsham)	3	3	6	rf	-
Ptenidium sp.	3	3	6	rt	-
Xylodromus concinnus (Marsham)	3	3	6	rt	-
Oxytelus sculptus Gravenhorst	3	3	6	rt	-
Gyrohypnus fracticornis (Muller)	3	3	6	rt	-
Neobisnius sp.	3	3	6	u	-
Aleocharinae sp. A	3	3	6	u	-
Bruchus ?rufimanus Boheman	3	3	6	u	-
Sphaeridium bipustulatum Fabricius	2	2	14	rf	-
Anotylus rugosus (Fabricius)	2	2	14	rt	-
Philonthus sp.	2	2	14	u	large
Staphylininae sp. A	2	2	14	u	large
Falagria sp.	2	2	14	rt	-
Aleocharinae sp. B	2	2	14	u	-
Aleocharinae sp. C	2	2	14	u	-
Tipnus unicolor (Piller and Mitterpacher)	2	2	14	rd	-
Mycetaea hirta (Marsham)	2	2	14	rd	-
Carabidae sp.	1	1	23	ob	-
Helophorus sp. A	1	1	23	oa w	large
Helophorus sp. B	1	1	23	oa w	med
Cercyon terminatus (Marsham)	1	1	23	rf	-
Cercyon sp.	1	1	23	u	pale
Histerinae sp.	1	1	23	u	-
Acrotrichis sp.	1	1	23	rt	-
Scydmaenus tarsatus (Muller & Kunze)	1	1	23	rt	-
Lesteva sp.	1	1	23	oa d	-
Omalium ?rivulare (Paykull)	1	1	23	rt	-
Carpelimus pusillus group	1	1	23	u	-
Anotylus nitidulus (Gravenhorst)	1	1	23	rt d	-
Anotylus sculpturatus group	1	1	23	rt	-
Anotylus tetracaratus (Block)	1	1	23	rt	-
Stenus sp. A	1	1	23	u	-
Stenus sp. B	1	1	23	u	-
Staphylininae sp. B	1	1	23	u	small
Staphylininae sp. C	1	1	23	u	even small
Aleocharinae sp. D	1	1	23	u	-
Aphodius sp.	1	1	23	ob rf	-
Clambus sp.	1	1	23	rt	-
Cyphon sp.	1	1	23	oa d	-
Anobium punctatum (Degeer)	1	1	23	l	-
Ptinus ?fur (Linnaeus)	1	1	23	rd	-
Lyctus linearis (Goeze)	1	1	23	l	-
Monotoma sp.	1	1	23	rt	-
Cryptophagus sp. A	1	1	23	rd	-
Cryptophagus sp. B	1	1	23	rd	-
Corticaria sp. A	1	1	23	rt	-
Corticaria sp. B	1	1	23	rt	-
Sitophilus granarius (Linnaeus)	1	1	23	g	-
Curculionidae sp.	1	1	23	oa	scrotty
Coleoptera sp.	1	1	23	u	-
Lygaeidae sp.	1	1	23	oa p	-
Heteroptera sp.	1	1	23	u	wing frag

Auchenorhyncha sp.	1	1	23	oa p	-
Trioza urticae (Linnaeus)	1	1	23	oa p	-

SPECIES LIST IN TAXONOMIC ORDER

Site: bdf86 Context: 229 Sample: 229/T

Taxon	Number	%	Rank	Ecodes	Notes
Carabidae sp.	1	1	23	ob	-
Helophorus sp. A	1	1	23	oa w	large
Helophorus sp. B	1	1	23	oa w	med
Sphaeridium bipustulatum Fabricius	2	2	14	rf	-
Cercyon analis (Paykull)	5	5	2	rt	2 pale
Cercyon atricapillus (Marsham)	3	3	6	rf	-
Cercyon terminatus (Marsham)	1	1	23	rf	-
Cercyon sp.	1	1	23	u	pale
Histerinae sp.	1	1	23	u	-
Ptenidium sp.	3	3	6	rt	-
Acrotrichis sp.	1	1	23	rt	-
Scydmaenus tarsatus (Muller & Kunze)	1	1	23	rt	-
Lesteva sp.	1	1	23	oa d	-
Omalius ?rivulare (Paykull)	1	1	23	rt	-
Xylodromus concinnus (Marsham)	3	3	6	rt	-
Carpelimus ?bilineatus Stephens	9	8	1	rt	-
Carpelimus fuliginosus (Gravenhorst)	5	5	2	u	-
Carpelimus pusillus group	1	1	23	u	-
Anotylus nitidulus (Gravenhorst)	1	1	23	rt d	-
Anotylus rugosus (Fabricius)	2	2	14	rt	-
Anotylus sculpturatus group	1	1	23	rt	-
Anotylus tetracaratus (Block)	1	1	23	rt	-
Oxytelus sculptus Gravenhorst	3	3	6	rt	-
Stenus sp. A	1	1	23	u	-
Stenus sp. B	1	1	23	u	-
Gyrophypnus fracticornis (Muller)	3	3	6	rt	-
Neobisnius sp.	3	3	6	u	-
Philonthus sp.	2	2	14	u	large
Staphylininae sp. A	2	2	14	u	large
Staphylininae sp. B	1	1	23	u	small
Staphylininae sp. C	1	1	23	u	even small
Falagria sp.	2	2	14	rt	-
Aleocharinae sp. A	3	3	6	u	-
Aleocharinae sp. B	2	2	14	u	-
Aleocharinae sp. C	2	2	14	u	-
Aleocharinae sp. D	1	1	23	u	-
Aphodius sp.	1	1	23	ob rf	-
Clambus sp.	1	1	23	rt	-
Cyphon sp.	1	1	23	oa d	-
Anobium punctatum (Degeer)	1	1	23	l	-
Tipnus unicolor (Piller and Mitterpacher)	2	2	14	rd	-
Ptinus ?fur (Linnaeus)	1	1	23	rd	-
Lyctus linearis (Goeze)	1	1	23	l	-
Monotoma sp.	1	1	23	rt	-
Cryptophagus sp. A	1	1	23	rd	-
Cryptophagus sp. B	1	1	23	rd	-
Atomaria sp.	4	4	4	rd	-
Mycetaea hirta (Marsham)	2	2	14	rd	-
Lathridius minutus group	4	4	4	rd	-
Corticaria sp. A	1	1	23	rt	-
Corticaria sp. B	1	1	23	rt	-
Bruchus ?rufimanus Boheman	3	3	6	u	-
Sitophilus granarius (Linnaeus)	1	1	23	g	-
Curculionidae sp.	1	1	23	oa	scrotty
Coleoptera sp.	1	1	23	u	-
Lygaeidae sp.	1	1	23	oa p	-
Heteroptera sp.	1	1	23	u	wing frag

Auchenorhyncha sp.
Trioza urticae (Linnaeus)

1	1	23	oa p	-
1	1	23	oa p	-

bdf86 994 121/t
null,,000-.000-.000-,u,0,-

Site: bdf86 Context: 994 Sample: 121/t

NO RECORDS OF BEETLES OR BUGS

MAIN STATISTICS FOR ASSEMBLAGE OF COLEOPTERA AND HEMIPTERA

Site: bdf86 Context: 1188 Sample: 91188/t
 Care! Very small assemblage, 4 individuals.

Fully quantitative (or estimates for very large numbers only).

Degree of erosion = 3. Degree of fragmentation = 5.

Weight 1 kg so numbers of individuals are concentrations.

Number of individuals estimated at N = 4
 Number of taxa S = 4
 Index of diversity not calculated, $n = s$ or $n < 20$

Number of 'certain' outdoor taxa SOA = 1
 Percentage of 'certain' outdoor taxa %SOA = 25
 Number of 'certain' outdoor individuals NOA = 1
 Percentage of 'certain' outdoor individuals %NOA = 25
 Number of 'certain' and probable outdoor taxa SOB = 2
 Percentage of 'certain' and probable outdoor taxa %SOB = 50
 Number of 'certain' and probable outdoor individuals NOB = 2
 Percentage 'certain' and probable outdoor individuals %NOB = 50

Diversity index for OB not calculated, $NOB = SOB$ or $NOB < 20$
 %SOB : %NOB = 1.0

Number of aquatic taxa SW = 0
 Percentage of aquatic taxa %SW = 0
 Number of aquatic individuals NW = 0
 Percentage of aquatic individuals %NW = 0
 Number of damp ground/waterside taxa SD = 0
 Percentage of damp ground/waterside taxa %SD = 0
 Number of damp ground/waterside individuals ND = 0
 Percentage of damp ground/waterside individuals %ND = 0

Number of strongly plant-associated taxa SP = 0
 Percentage of strongly plant-associated taxa %SP = 0
 Number of strongly plant-associated individuals NP = 0
 Percentage of strongly plant-associated individuals %NP = 0
 Number of heathland/moorland taxa SM = 0
 Percentage of heathland/moorland taxa %SM = 0
 Number of heathland/moorland individuals NM = 0
 Percentage of heathland/moorland individuals %NM = 0

ND as % NOB = 0
 NW as % NOB = 0
 NP as % NOB = 0

Number of wood-associated taxa SL = 0
 Number of wood-associated individuals NL = 0
 Percentage of wood-associated individuals %NL = 0

Number of decomposer taxa	SRT =	0
Percentage of decomposer taxa	%SRT =	0
Number of decomposer individuals	NRT =	0
Percentage of decomposer individuals	%NRT =	0
Number of 'dry' decomposer taxa	SRD =	0
Percentage of 'dry' decomposer taxa	%SRD =	0
Number of 'dry' decomposer individuals	NRD =	0
Percentage of 'dry' decomposer individuals	%NRD =	0
Number of 'foul' decomposer taxa	SRF =	0
Percentage of 'foul' decomposer taxa	%SRF =	0
Number of 'foul' decomposer individuals	NRF =	0
Percentage of 'foul' decomposer individuals	%NRF =	0

Diversity index for RT not calculated, NRT = SRT or NRT < 20

NRD as % NRT =	0
NRF as % NRT =	0

Number of individuals of grain pests	NG =	0
Percentage of individuals of grain pests	%NG =	0

There are 2 uncoded taxa with 2 individuals, 50% of the assemblage.

SPECIES LIST IN RANK ORDER

Site: bdf86 Context: 1188 Sample: 91188/t

Taxon	Number	%	Rank	Ecodes	Notes
Trechus obtusus or quadristriatus	1	25	1	oa	-
Carabidae sp.	1	25	1	ob	largish gr
Coleoptera sp. A	1	25	1	u	-
Coleoptera sp. B	1	25	1	u	-

SPECIES LIST IN TAXONOMIC ORDER

Site: bdf86 Context: 1188 Sample: 91188/t

Taxon	Number	%	Rank	Ecodes	Notes
Trechus obtusus or quadristriatus	1	25	1	oa	-
Carabidae sp.	1	25	1	ob	largish gr
Coleoptera sp. A	1	25	1	u	-
Coleoptera sp. B	1	25	1	u	-

Site: bdf86 Context: 1210 Sample: 91210/t

NO RECORDS OF BEETLES OR BUGS

bdf86 1214 91214/t
null,.000-.000-.000-,u,0,-

Site: bdf86 Context: 1214 Sample: 91214/t

NO RECORDS OF BEETLES OR BUGS

BDF86 2009 92009/t
Coleoptera sp.,,099-.099-.099-,u,1,-
+modern fly contamination
*Oligochaeta sp. (egg capsule),,888-.888-.888-,u,1,-

MAIN STATISTICS FOR ASSEMBLAGE OF COLEOPTERA AND HEMIPTERA

Site: BDF86 Context: 2009 Sample: 92009/t
 Care! Very small assemblage, 1 individuals.

Fully quantitative (or estimates for very large numbers only).

No record of erosion and fragmentation

Weight 1 kg so numbers of individuals are concentrations.

Number of individuals estimated at N = 1
 Number of taxa S = 1
 Index of diversity not calculated, $n = s$ or $n < 20$

Number of 'certain' outdoor taxa SOA = 0
 Percentage of 'certain' outdoor taxa %SOA = 0
 Number of 'certain' outdoor individuals NOA = 0
 Percentage of 'certain' outdoor individuals %NOA = 0
 Number of 'certain' and probable outdoor taxa SOB = 0
 Percentage of 'certain' and probable outdoor taxa %SOB = 0
 Number of 'certain' and probable outdoor individuals NOB = 0
 Percentage 'certain' and probable outdoor individuals %NOB = 0

Diversity index for OB not calculated, NOB = SOB or NOB < 20
 PSOB/PNOB not calculable

Number of aquatic taxa SW = 0
 Percentage of aquatic taxa %SW = 0
 Number of aquatic individuals NW = 0
 Percentage of aquatic individuals %NW = 0
 Number of damp ground/waterside taxa SD = 0
 Percentage of damp ground/waterside taxa %SD = 0
 Number of damp ground/waterside individuals ND = 0
 Percentage of damp ground/waterside individuals %ND = 0

Number of strongly plant-associated taxa SP = 0
 Percentage of strongly plant-associated taxa %SP = 0
 Number of strongly plant-associated individuals NP = 0
 Percentage of strongly plant-associated individuals %NP = 0
 Number of heathland/moorland taxa SM = 0
 Percentage of heathland/moorland taxa %SM = 0
 Number of heathland/moorland individuals NM = 0
 Percentage of heathland/moorland individuals %NM = 0

ND as % NOB = 0
 NW as % NOB = 0
 NP as % NOB = 0

Number of wood-associated taxa SL = 0
 Number of wood-associated individuals NL = 0
 Percentage of wood-associated individuals %NL = 0

Number of decomposer taxa	SRT =	0
Percentage of decomposer taxa	%SRT =	0
Number of decomposer individuals	NRT =	0
Percentage of decomposer individuals	%NRT =	0
Number of 'dry' decomposer taxa	SRD =	0
Percentage of 'dry' decomposer taxa	%SRD =	0
Number of 'dry' decomposer individuals	NRD =	0
Percentage of 'dry' decomposer individuals	%NRD =	0
Number of 'foul' decomposer taxa	SRF =	0
Percentage of 'foul' decomposer taxa	%SRF =	0
Number of 'foul' decomposer individuals	NRF =	0
Percentage of 'foul' decomposer individuals	%NRF =	0

Diversity index for RT not calculated, NRT = SRT or NRT < 20

NRD as % NRT =	0
NRF as % NRT =	0

Number of individuals of grain pests	NG =	0
Percentage of individuals of grain pests	%NG =	0

There are 1 uncoded taxa with 1 individuals, 100% of the assemblage.

SPECIES LIST IN RANK ORDER

Site: BDF86 Context: 2009 Sample: 92009/t

Taxon	Number	%	Rank	Ecodes	Notes
Coleoptera sp.	1	100	1	u	-

SPECIES LIST IN TAXONOMIC ORDER

Site: BDF86 Context: 2009 Sample: 92009/t

Taxon	Number	%	Rank	Ecodes	Notes
Coleoptera sp.	1	100	1	u	-