

# **Plant and insect remains from Coffee Yard, York (1987.1). An Environmental Archive Report**

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*Scanned from original hard copy February 2008. Some typographical and other minor corrections have been made but the text has not otherwise been modified. The original data archives for plant and insect remains have been replaced by HK (and Allan Hall) using their current data handling systems. This report was given a 'post-hoc' EAU Report no. (89/12).*

## **Introduction**

This report presents details of the plant and insect remains, sediment, descriptions and a data archive for material from Coffee Yard.

The site was excavated between February and April 1987 and comprised a 14th Century timber framed building running back from Stonegate towards Grape Lane and a 15th Century Hall built at right angles into the south west face of the earlier structure. The 14<sup>th</sup> Century building was originally divided into six bays and was subsequently shortened, with four bays remaining, represented by areas 1 and 2. A small part of the fifth bay, area 5, was also examined. The second structure featured a hall area and service room, areas 3 and 4, bisected by a public right of way.

The group codes assigned to each sample refer to area, context group and immediately associated contexts and have been listed in order of period as shown on the site matrix, evidence from the pottery provided dating for some of the contexts (Sarah Jennings pers. comm.) and where necessary the order has been adjusted. More specific archaeological and dating information was unavailable while this report was in preparation.

## **Methods**

Samples for processing were chosen by group consisting of at least two of the following for any session: Dr. A. R. Hall, A. K. G. Jones, HK, PT; the sample descriptions were made at this time. The subsample sizes were chosen during this process. While the standard test sample is 1kg, much of the material appeared rather unpromising, though easily processed, so in several cases larger subsamples were used.

Sixty two test samples were processed by paraffin flotation for insect and botanical remains. A further twenty nine bulk samples and two spot finds were investigated for botanical remains.

The test sample flots were examined following the rapid scan system described in Kenward *et al.* (1986a). The insect assemblages, when present, were, in the main quite small, and were recorded absolutely.

Species lists have been recorded on and processed by the University of York VAX-cluster mainframe employing a PASCAL program devised by HK. The program produces lists ordered by rank and taxon and statistics to further the interpretation of each sample. Hard copies of these files are included in the tables forming the appendices. Database files are also created by the program for analysis in the DATATRIVE data interrogation system.

Plant remains were examined from the residues of the test samples and from the bulk sieved samples. Methods follow the rapid scanning techniques developed in the laboratory for efficient processing of large numbers of samples (Hall *et al.* forthcoming). Data files of the plant remains are presented in the appendix tables.

### **Period 1 (late 13th to early 14th Century)**

#### Group 1.1

##### 1.1.9

#### ***Context 1289, Sample 83***

Mid grey-brown moist plastic slightly sandy clay silt with very small quantities of bone and limestone, and oyster shells in some abundance.

#### *Plant remains*

The 3kg test sample produced a few charred cereal grains (including *Hordeum* sp(p)., barley, and *Avena* sp(p)., oats) and a few other apparently ecologically unrelated taxa, notably *Stachys* sp(p). there were only seven taxa noted in total, however.

#### *Insect remains*

The tiny flot contained three Diptera spp. heads and a single individual of *Atomaria* sp.

#### Group 2.1

##### 2.1.3

#### ***Context 2206, Sample 95***

Mid to dark grey-brown moist plastic slightly sandy silty clay with charcoal and a modest presence of tile, mortar and stone.

#### *Plant remains*

The 3kg test and a bulk-sieved rough-sorted sample from context 2206 produced a total of only four taxa. A charred cf. *Triticum* grain and a charred *Anthemis cotula* achene were slight evidence of cereals and cereal weeds; *Juncus bufonius* and *Sambucus nigra* were the other two taxa.

### *Insect remains*

The tiny flot included two beetles, a small Aleocharinae sp. and a weevil.

## **Summary of Period 1**

The limited number of plant, and insect remains from this Period were of little interpretable value. There were a few charred cereals and some other plant taxa of uncertain origin. There were too few beetles present to define the environmental conditions.

## **Period 2 (14th Century)**

Group 1.3

1.3.3

### ***Context 1315, Sample 92***

Mid grey moist plastic to crumbly slightly sandy silty clay with abundant mortar, some tile and a little limestone.

### *Plant remains*

There were five taxa in this 3kg test sample, mostly representing disturbed ground, for example *Hyoscyamus nigra*. There was also *Stachys* sp(p). and *Sambucus nigra* and *Juncus* sp(p). the latter being among the most commonly recorded taxa from sites in York.

### *Insect remains*

Insects were represented by only a beetle mandible and a fragment of fly puparium in the minute flot.

### ***Context 1315, Sample 93***

Mid grey-brown moist plastic to crumbly slightly sandy silty clay with abundant charcoal, mortar and tile and a little limestone.

### *Plant remains*

This 3kg test sample produced six plant taxa from a variety of habitats. They were mostly disturbed ground plants, but there was also one achene of *Zannichellia palustris*, a plant which grows in rivers, streams, ditches and pools of fresh or brackish water. The remaining taxa, *Hypericum* sp(p)., *Stachys* sp(p). and *Galium* cf. *aparine*, do not provide any clear interpretation.

### *Insect remains*

The tiny flot contained one Diptera sp. wing, two puparium fragments and a single *Sitophilus granarius*.

1.3.4

***Context 13033 Sample 89***

The sample consisted of dark grey-brown moist plastic to crumbly slightly sandy silty clay with mottles of light to mid-yellowish buff clay and small quantities of stone, charcoal and tile. It was not thought suitable for further examination.

***Context 1272, Sample 86***

The sample did not warrant full analysis, being a mid red brown dry crumbly silty fine and coarse sand, quite evidently sterile.

1.3.10

***Context 1290g Sample 85***

Mid dark grey brown moist crumbly slightly clay silty fine and coarse sand with abundant mortar and some charcoal.

*Plant remains*

There were only two taxa from this 0.4kg test sample, *Juncus bufonius* and *Ranunculus* Subgenus *Batrachium* (water crowfoots). The crowfoots are an aquatic group of plants, another very slight suggestion that there was water being brought to the site from a natural watercourse or some other- body of water nearby. However, such seeds; could easily have been brought to the site on muddy boots or the feet of animals.

*Insect remains*

A single beetle leg and charcoal made up the tiny flot.

1.3.11

***Context 1293, Sample 84***

The black dry to moist crumbly silty fine and coarse sand with grey clasts was regarded as unsuitable for further attention.

Group 1.4

1.4.1

***Context 1269, Sample 79***

Mid grey-brown moist plastic slightly sandy silty clay with abundant mortar and charcoal, coal and some wood fragments and tile.

*Plant remains*

There were ten taxa from a 3kg test sample. These represent several habitats but no single habitat predominates. They were mostly species from disturbed habitats and, again, taxa -from aquatic situations (*Alisma* sp(p). and *Ranunculus* Subgenus *Batrachium*. *Hyoscyamus niger*, *Conium maculatum*, *Papaver argemone* and *Stachys* sp(p). are notable.

#### *Insect remains*

Two mites and a few fly and fly puparum fragments were present in the tiny flot, which also contained six beetle taxa - two individuals of *Anobium punctatum*, and single specimens of *Lathridius minutus* gp., *Cryptophagus* sp., Aleocharinae sp. and two others.

#### 1.4.2

#### ***Context 1251, Sample 73***

This spot sample contained an unidentifiable cereal grain.

#### ***Context 1251, Sample 75***

very dark grey-brown dry to moist crumbly humic slightly sandy silt.

#### *Plant remains*

This 3kg test sample contained plant remains from eight taxa. These included *Alisma* sp(p). and *Sphagnum* sp(p). as well as a mineralised cotyledon of a *Brassica* sp(p). There was also a bulk-sieved residue and the associated washover sample, which produced only *Rubus fruticosus* agg.

#### *Insect remains*

The tiny flot featured a spider, contaminant Thysanoptera sp. and *Euophrium* sp, and single individuals of *Sitophilus granarius*, *Ptinus fur* and a Heteroptera sp. wing fragment.

#### ***Context 1251, Sample 76***

Very dark grey moist crumbly humic slightly clay silt with small amounts of limestone and tile.

#### *Plant remains*

There were five taxa represented in the 3kg test sample and three additional taxa from the rough-sorted bulk-sieved sample. There was some evidence of cereals including mineralised cereal grain and *Agrostemma githago* seed. There were some charred *Triticum* sp(p). and cf. *Secale cereale* grains.

*Insect remains*

Charcoal, a contaminant *Euophrium* sp. and a single individual of *Oryzaephilus surinamensis* completed the tiny flot.

Group 1.5

1.5.1

**Context 1238, Sample 72**

A coprolite spot sample (passed to AKGJ for the appropriate analysis).

Group 5.1

5.1.3

**Context 5040, Sample 41**

Mid to dark grey-brown moist plastic to crumbly slightly clay sandy silt with mortar, small clay lumps and some tile and assorted stones.

*Plant remains*

There were six taxa from the 3kg test sample but no plant remains from the residue of the bulk-sieved sample. There was a fig (*Ficus carica*) seed, perhaps representing some food remains or faecal material. Other taxa represented diverse habitats, including the aquatic *Alisma* sp(p).

*Insect remains*

The very small flot included two *Aglenus brunneus* individuals and single specimens of *Xylodromus concinnus* and Curculionidae sp.

5.1.6

**Context 5037, Sample 34**

Mid grey—brown moist plastic very slightly sandy silty clay with small stones, charcoal, limestone and some rotted organic material also present.

*Plant remains*

There were eight taxa from the 3kg test sample, these included wasteland or rough grassland taxa such as *Carex* sp., *Euphrasia/Odontites* sp(p)., *Galeopsis* sp(p)., and *Ranunculus* Section *Ranunculus*. *Papaver argemone* perhaps represents arable weeds and *Rubus fruticosus* agg. and *Sambucus nigra* could have come from a variety of sources.

*Insect remains*

The small flot contained thirteen *Daphnia* sp. ephippia (water flea 'egg capsules'), and single individuals of *Tipnus unicolor*, *Anobium punctatum*, *Barynotus obscurus*, *Hister* sp., *Atomana* sp. and a Staphylinae sp.

5.1.8

**Context 5036, Sample 32**

Mid grey-brown moist slightly clay silty fine and coarse sand with mortar, tile, limestone and charcoal.

*Plant remains*

There were seven taxa from a 3kg test sample. *Ficus carica* was the only food plant represented. *Avena* sp(p). and *Fumaria* sp(p). might represent arable weeds. *Juncus bufonius*, *Papaver argemone* and *Sambucus nigra* were present but give little information.

*Insect remains*

The small flot, substantially charcoal and slag, included four mites and three beetles; *Aglenus brunneus*, *Anobium punctatum*; and a Ptinidae sp.

5.1.9

**Context 5034, Sample 29**

Mid to mid dark grey moist crumbly slightly clay silt with small stones, charcoal, bone, mortar and tile present.

*Plant remains*

There were only three taxa from the float of a 3kg test sample and the residue of a bulk-sieved sample. These were a charred cereal grain, *Juncus bufonius* and *Sambucus nigra*.

*Insect remains*

The tiny flot contained one *Daphnia* sp. egg capsule and a single, well rotted *Cercyon* sp.  
Group 4.1

4.1.5

**Context 4071, Sample 35**

Mid dark-grey moist plastic to crumbly slightly sandy silty clay with abundant tile and mortar.

*Insect remains*

The 1kg test sample produced a tiny flot containing single individuals of *Xylodromus concinnus* and

*Oryzaephilus surinamensis*.

**Context 4071, Sample 36**

Mid dark-grey moist plastic to crumbly slightly sandy silty clay with abundant tile and mortar.

*Plant remains*

The 3kg test sample produced three taxa, *Avena* sp(p), *Sambucus nigra* and *Stachys* sp(p).

**Summary of Period 2**

There are small numbers of insects from these samples but the quality of preservation suggests that this represents a low level of input rather than decompositional loss. The fauna included grain pests, domestics (including the woodworm, *Anobium punctatum*), some eurytopic decomposers and a very small number of “outdoor” forms, perhaps introduced in the same way as some of the plant remains. *Daphnia*, like aquatic plants, provide clear evidence of water. Perhaps they were brought with materials for the construction of floors ("clay") or flooring materials (waterside vegetation), or with imported water. The plant remains from aquatic habitats also seem to be imported accidentally as they are not the types likely to be used for flooring or bedding. There were a few food plants represented, including fig and cereal grains with some of their associated weeds.

**Period 4 (late 14th to early 15th Century)**

Group 3.6

3.6.9

**Context 3080, Sample 68**

Mid dark grey-brown moist plastic crumbly clay sandy silt with charcoal, tile and plaster, and some small light yellow clay lumps and coal and coal cinders.

*Plant remains*

This 1kg test sample contained seven taxa, including the commonly occurring *Carex* sp(p), *Juncus bufonius*, *Sambucus nigra* and cf. *Stachys* sp(p). There was also a *Salix* sp(p) bud and a leaf of *Picea abies* (Norway spruce).

*Insect remains*

The small flot, mainly of charcoal and slag, included a wasp head, a mite and eight beetle taxa. This assemblage, while mostly single individuals, was of the same general character - ‘dry’ decomposers and grain pests — found throughout Coffee Yard. The grain weevil *Sitophilus granarius* was present in very high numbers, however (48 individuals), suggesting proximity to contaminated grain. Two taxa, almost certainly of ‘background’ origin, were also represented - single individuals of *Aphodius* sp., a ‘foul’ decomposer, and the plant-associated *Apion* sp..



### 3.6.10

#### ***Context 3078, Sample 65***

Mid brown dry crumbly slightly silty fine and coarse sand with small quantities of limestone, mortar and tile.

A 3kg subsample was processed and gave a minute flot, composed mainly of charcoal and slag. Plant and insect remains were absent from both the flot and the residue.

#### ***Context 3075, Sample 64***

Mid red-brown dry crumbly slightly silty fine and coarse sand with lumps of red brown silty clay, some mortar and a little limestone, charcoal and tile.

#### *Plant remains*

Only two taxa were recorded from this 3kg test sample. These were *Cerastium* sp(p), and *Potentilla* sp(p).

#### *Insect remains*

The minute flot contained charcoal, sand, and a fragment of beetle underside.

### Group 3.7

#### 3.7.2

#### ***Context 3093, Sample 71***

The sample consisted of a mid grey—brown moist plastic slightly sandy silty clay with charcoal in abundance and some bone and tile fragments, and was not examined further.

#### 3.7.3

#### ***Context 3092, Sample 70***

Mid to dark grey brown dry to moist plastic crumbly sandy silty clay with abundant mortar and tile and a little shellfish.

#### *Plant remains*

Only two taxa were recorded from the 1kg test sample, *Alisma* sp(p). and *Juncus* sp(p)..

#### *Insect remains*

Charcoal and slag were once again predominant in the tiny flot. The invertebrates were represented by four *Daphnia* sp. ephippia, six *Lophopus crystallinus* (Pallas) resting eggs, a mite and one grain beetle, *Oryzaephilus surinamensis*, *L. crystallinus* is a bryozoan, an encrusting aquatic invertebrate, and its eggs are often recorded in company with the ephippia of the water fleas *Daphnia* spp.

## Group 4.3

### 4.3.2

#### ***Context 4021, Sample 51***

Mid brown moist plastic sandy silty clay with charcoal, mortar and some tile.

#### *Plant remains*

The 3kg test sample yielded four taxa, all of which could be interpreted as having been food plants, although some of them could equally have been weeds. They were *Ficus carica*, *Rubus fruticosus* agg., *Rubus idaeus* and *Sambucus nigra*.

#### *Insect remains*

The tiny flot contained a few fly puparium fragments, two adult fly heads, a mite and ten beetle taxa, including single individuals of two *Corticaria* spp., two Ptinidae spp., and *Anobium punctatum*.

## Group 4.4

### 4.4.1

#### ***Context 4051, Sample 30***

Light mid-grey brown dry crumbly slightly sandy clay silt with some mortar and tile.

#### *Plant remains*

There was only one taxon, *Juncus* sp(p)., from the 3kg test sample.

#### *Insect remains*

The tiny flot included charcoal, slag and two clearly contaminant (modern) Thysanoptera sp. Twelve individuals of seven beetle taxa were recorded. There were four *Tipnus unicolor*, two each of *Oryzaephilus surinamensis* and *Sitophilus granarius*, and single individuals of other taxa.

#### ***Context 4037, Sample 23***

Very dark grey moist crumbly slightly layered silty fine and coarse sand with small quantities of charcoal, bone, mortar and tile.

#### *Plant remains*

There were twelve taxa from the 3kg test sample, making this the richest sample from the whole site. Compared with the several tens of taxa generally recorded from, for example, waterlogged Anglo-Scandinavian or Roman samples, this assemblage is actually quite modest. Sedges, rushes and grasses were represented, as were *Alisma* sp(p), *Papaver argemone* and *Ranunculus* Section *Ranunculus*. There were two unusual taxa in this sample - *Reseda lutea* and *Silene gallica*, the latter perhaps a garden plant or weed.

#### *Insect remains*

The large flot, predominantly charcoal and slag, included four mites. Nine species of beetle were represented, mostly by single individuals, but quite substantial numbers of the grain weevil *Sitophilus granarius* were recorded, with another grain pest, *Oryzaephilus surinamensis* at rank 2 with three individuals: the total number of individuals, N, was 50. 'Outdoor' insects were quite rare (%NOB =4), and the assemblage consisted primarily of grain pests, with a few decomposers typical of urban archaeological assemblages.

#### 4.4.4

##### **Context 4007, Sample 13**

Light mid yellow—grey dry crumbly silty fine and coarse sand with abundant mortar, some tile and assorted stones and charcoal.

#### *Plant remains*

There were *Juncus bufonius* seeds in the flot from a 3kg test sample and *Ranunculus* Section *Ranunculus* achenes from the residue of a bulk-sieved sample, but nothing else.

#### *Insect remains*

The tiny flot consisted mainly of charcoal and slag and included three mites. The beetle assemblage was essentially similar in character to many other samples from this site, with grain pests, domestics and typical urban decomposers.

### **Summary of Period 4**

Numbers of insects were quite small in most cases, but two quite large groups, both dominated by the grain weevil *Sitophilus granarius* were noted, it seems likely that there was contaminated grain close by when these layers were deposited. These grain pests appear not to have been 'background fauna' since other likely background elements were rare. Domestics and typical urban decomposers were consistently represented. Conditions were clearly rather clean. Among the other invertebrates, records of *Daphnia* sp. ephippia and *Lophopus crystallinus* resting eggs are notable. It is uncertain how these remains found their way into the deposits, but introduction in imported clay or silt is one possibility.

The majority of samples had very few plant remains; this was presumably due in part to poor preservation but there may have been little organic matter initially incorporated into the deposits.

## **Period 5a (15th to 16th Century)**

### Group 1.7

#### 1.7.1

##### ***Context 1266, Sample 77***

Mid grey-brown moist, crumbly silty fine to coarse sand with a little tile, mortar and bone.

##### *Plant remains*

There were four taxa in a 1kg test sample. Two of these were aquatic plants, *Alisma* sp(p) and *Lemna* sp(p). The other two were *Carex* sp(p) . and *Hypericum* sp( p) .

##### *Insect remains*

A single *Sitophilus granarius* and one other undetermined beetle made up the minute flot.

##### ***Context 1267, Sample 81***

Mid grey moist plastic silty clay with layers of grey brown clay and charcoal with mortar and limestone in abundance.

##### *Plant remains*

A 3kg test sample produced nine plant taxa. These included a charred *Triticum* sp(p). grain and a *Salix* sp. bud, but otherwise there was little difference from other samples from this site.

##### *Insect remains*

Similarly, the five beetle species from the tiny flot were typical of this site. A single *Daphnia* sp. ephippium was also present.

#### 1.7.6

##### ***Context 1209, Sample 63***

Light yellowish-grey moist plastic slightly silty clay with a substantial charcoal component and a few small stones, tile and shellfish fragments.

##### *Plant remains*

There was a bulk sieved sample from this context and a 3kg test sample. There was a total of four taxa from these two samples including a *Vitis vinifera* (grape) seed.

*Insect remains*

The minute flot included a spider fragment and single individuals of two spider beetles, *Ptinus fur* and *Tipnus unicolor*.

Group 1.9

1.9.2

***Context 1178, Sample 56***

Mid grey-brown moist very slightly plastic crumbly sandy clay silt with small quantities of limestone, charcoal, shellfish, mortar and tile.

*Plant remains*

Four taxa were represented from a 3kg test sample including *Ficus carica* and a *Salix* sp. bud.

*Insect remains*

The minute flot featured small charcoal fragments, the head and pronotum of a fly and two beetles.

Group 1.10

1.10.1

***Context 1115, Sample 53***

Mid grey-brown dry crumbly slightly clay sandy silt with a little charcoal and tile.

*Plant remains*

This 3kg test sample produced eight plant taxa. There was *Ficus carica* and a charred cereal grain but not much else.

*Insect remains*

The tiny flot included three beetle taxa, as well as charcoal and slag.

1.10.2

**Context 1126, Sample 45**

Mid olive-grey moist plastic crumbly slightly sandy silty clay with a few small stones, mortar and iron-stained mottles.

*Plant remains*

A 3kg test sample produced plant remains from five taxa. There were some hints of aquatic habitats, with *Alisma* sp(p). and *Ranunculus* Subgenus *Batrachium*. *Sphagnum* leaves were recorded and might indicate the importation of peat.

*Insect remains*

The modest beetle assemblage was once again much like many others from Coffee Yard, with three individuals of *Tipnus unicolor*, two of *Oryzaephilus surinamensis*, and an *Anobium punctatum* recorded from the tiny flot.

**Context 1116, Sample 42**

The sample was a mid red-brown dry crumbly fine sand with small quantities of charcoal, mortar and tile. It was considered unworthy of further attention.

Group 1.11

1.11.28

**Context 1123, Sample 43**

The varicoloured black to cream moist crumbly to brittle slightly sandy silt/clay sample included small quantities of charcoal, mortar and tile and was regarded as of low priority for plant and insect analysis.

1.11.32

**Context 1043, Sample 22**

This 'spot' sample of mid to dark grey-brown dry to moist crumbly brittle sandy silt spot sample was rejected as unlikely to provide useful information.

Group 1.12

1.12.2

**Context 1080, Sample 37**

Light to mid grey-brown moist crumbly sandy silty clay with a few tile fragments.

*Plant remains*

The 1kg test sample contained only *Sambucus nigra*.

*Insect remains*

Only a fly puparium fragment and a contaminant Psocoptera sp. featured in the meagre flot.

**Context 1080, Sample 38**

Mid grey-brown moist crumbly slightly sandy silty clay with small quantities of charcoal, mortar and tile.

*Plant remains*

A 3kg test sample had *Juncus* sp(p). only, but the residue and washover from the bulk-sieved sample produced eleven taxa. Amongst these there were some which were unusual for the samples from this site, for example: *Euphorbia helioscopia*, *Caltha palustris*, *Sonchus asper* and *Lamium* Section *Lamiopsis*. *Ficus carica* provides a hint of evidence for food remains.

*Insect remains*

Beetles in the tiny flot were made up by two individuals of *Tipnus unicolor*, and one each of *Atomaria* sp., *Aphodius* sp. and *Rhizophagus* sp. Three contaminant flies were also present.

Group 2.5

2.5.2

**Context 2200, Sample 94**

Light to mid grey dry crumbly sandy silty clay with much limestone and mortar and some tile. It was not analysed for insect remains, and plants were seen only in a bulk sample.

*Plant remains*

The residue and rough sort from a bulk sieved sub-sample produced four plant taxa, including *Triticum* sp(p). and *Hordeum* sp(p). charred grains.

2.5.7

**Context 2184, Sample 91**

There was no sediment description for this sample as it was only bulk-sieved. No insect remains were recorded.

*Plant remains*

The rough sort from the bulk-sieved sample produced three taxa *Vitis vinifera*, charred *Vicia* cf. *hirsuta* and a charred cereal grain.

2.5.10

**Context 2180, Sample 88**

Light to mid yellowish-grey dry to moist plastic crumbly slightly sandy clay with charcoal, tile and chalk present.

*Plant remains*

In the flot from a 3kg test there was only *Juncus bufonius*. The bulk-sieved residue produced no plant remains.

*Insect remains*

The tiny flot contained charcoal and slag, a mite, a fly fragment, part of a fly puparium and twelve *Daphnia* sp. ephippia. There were also six beetle taxa, the assemblage having much the same character as the majority from this site.

2.5.12

**Context 2179, Sample 87**

Light to mid grey-brown moist plastic very slightly sandy silty clay with mortar, tile and brick in some abundance, charcoal, and pale buff to light grey clay lumps.

*Plant remains*

The float from a 3kg test sample produced only *Juncus bufonius*. There were no plant remains from the bulk-sieved residue.

*Insect remains*

There were two individuals of *Tipnus unicolor* and *Cryptophagus* sp. and one each of *Anobium punctatum*, *Lathridius minutus* gp. and *Helophorus* sp., a *Daphnia* sp. ephippium and a fly fragment in the minute flot.

Group 2.8

2.8.1

**Context 2052, Sample 17**

The sample consisted of light to mid brown moist crumbly slightly silty slightly clay fine to coarse sand with a little charcoal and tile and was not regarded as of high priority for further analysis.



## Group 2.6

### 2.6.1

#### ***Context 2174, Sample 82***

Very dark grey moist crumbly slightly humic sandy silt with abundant charcoal and tile and a large brick fragment.

#### *Plant remains*

A 1kg test sample had only *Juncus bufonius* in the flot.

#### *Insect remains*

The tiny flot, comprising mostly charcoal and slag, included a single undetermined beetle jaw.

#### ***Context 2173, Sample 80***

Mid to dark grey-brown moist crumbly slightly clay silty fine to coarse sand with abundant fine charcoal, some coal and patches of ash, and a few small stones and bones.

#### *Plant remains*

A 3kg test sample produced only several seeds of *Juncus* sp(p). representing some of the taller growing rush species rather than, more usual for this site, the short species *Juncus bufonius*.

#### *Insect remains*

The only invertebrates present in the tiny flot were a single mite and a fly fragment.

#### ***Context 2171, Sample 78***

Mid grey-brown dry to just moist crumbly, possibly humic, sandy silt with a few bone and shellfish fragments.

#### *Plant remains*

There were no plant remains from a 3kg test sample.

#### *Insect remains*

The tiny flot contained single individuals of *Ptinus fur* and *Dienerella* sp., a modern fly contaminant, and charcoal and slag.

## 2.6.2

### **Context 2126, Sample 54**

Mid grey-brown dry to moist crumbly sandy silt with flecks of mortar in some abundance, a few small clay balls and a little limestone and tile.

#### *Plant remains*

There were two taxa, *Ficus carica* and *Juncus bufonius*, from the float of a 1kg test sample.

#### *Insect remains*

The small float included three mites and a fairly substantial beetle assemblage. The number of individuals of beetles was estimated at forty-seven and seventeen taxa were recorded. Diversity was very low (alpha = 10, SE = 2), a result of the domination of the assemblage by *Oryzaephilus surinamensis* (eleven individuals), *Tipnus unicolor* (10) and *Aglenus brunneus* (6). There were also four each of *Ptinus fur* and *Sitophilus granarius*. The decomposer component was substantial (but modest by, for example, the standards of Anglo-Scandinavian York), and consisted predominately of taxa coded 'Rd', that is, associated with relatively dry decomposing matter. The diversity of the decomposer component was extremely low (alpha RT = 6, SE = 2) and it may be assumed that these taxa bred in the building. They are mostly typical domestic or stored products forms which would have been present in most domestic buildings until the middle of the twentieth century. The *Aglenus brunneus* may have been intrusive

## Group 2.7

### 2.7.1

#### **Context 2101, Sample 33**

Mid grey—brown moist plastic crumbly silty fine to coarse sand with some sandy silty clay, and modest quantities of mortar, tile and stone.

#### *Plant remains*

There were two taxa, *Juncus* sp(p). and *Potentilla* sp(p)., in the float from a 0.733kg test sample.

#### *Insect remains*

The minute float included charcoal, slag, sand and a single individual of *Tipnus unicolor*.

### 2.7.3

#### **Context 2127, Sample 50**

Light yellowish-grey dry crumbly sandy silt with much mortar and substantially less small stones and tile.

#### *Plant remains*

There were only three taxa from a 3kg test sample. These included *Ficus carica* and *Reseda lutea*.

*Insect remains*

The medium sized flot produced ten mites and a (relatively) substantial assemblage of beetles. Sixteen taxa were recorded, with a total of thirty-eight individuals. There was a general similarity in implications, if not in the relative numbers of the taxa, to the assemblage from sample 54, above.

***Context 2107, Sample 44***

Mid yellow-brown moist crumbly silty fine sand.

*Plant remains*

There were only three taxa from this 3kg test sample.

*Insect remains*

There were three mites and eight beetle species in the tiny flot. Most of the latter were represented by single sclerites, a notable exception being *Tipnus unicolor* with eleven individuals. This spider beetle is becoming regarded as typical of Roman and later medieval urban assemblages. It is probably associated with fairly long-lived buildings.

2.7.5

***Context 2110, Sample 40***

Mid brown dry to moist plastic crumbly slightly sandy silt with mortar in abundance and some tile.

*Plant remains*

There were only two taxa from this 3kg test sample.

*Insect remains*

The minute flot included eight species of beetle, mostly single representatives, although *Tipnus unicolor* was relatively abundant with six individuals.

2.7.6

***Context 2108, Sample 39***

Light to mid grey-brown slightly moist crumbly sandy clay silt with small quantities of charcoal, mortar and tile.

*Plant remains*

A 3kg test sample produced six taxa including a range of sedges, rushes, grasses and *Typha* sp.). These perhaps represent plants brought in for roofing or flooring material.

*Insect remains*

The tiny flot included a fly puparium fragment, a mite, a spider fragment and five *Daphnia* sp. ehippia. The modest assemblage of beetles (N = 18, S = 10) included four individuals of *Tipnus unicolor*, and three each of *Lathridius minutus* gp. and *Anotylus complanatus*.

Group 3.11

3.11.2

**Context 3081, Sample 67**

Light brown moist plastic slightly sandy clay with tile, charcoal, mortar and chalk.

*Plant remains*

A 3kg test sample produced eight taxa with some suggestions of aquatic habitats from *Chara* sp(p). and *Ranunculus* Subgenus *Batrachium*. *Quercus* sp(p). buds were also present.

*Insect remains*

The tiny flot contained fragments of fly and fly puparia, a small ant head and a few *Daphnia* sp. ehippia. Grain pests dominated the modest collection of beetle remains.

3.11.3

**Context 3079, Sample 66**

Mid to dark grey-brown moist plastic to crumbly sandy silty clay with yellow-brown silty clay lumps, some tile and brick and a little charcoal and mortar.

*Plant remains*

There were only three taxa in the float of this 3kg test sample, plants generally common in the samples from this site.

*Insect remains*

The tiny flot included a mite, two *Daphnia* sp. ehippia and eight beetle species (N = 15).

Group 3.14

3.14.1

***Context 3030, Sample 58***

Dark grey grey crumbly slightly clay sandy silt with very modest quantities of charcoal, coal, bone, mortar and tile.

*Plant remains*

There were no identifiable plant remains in the float of this 3kg test sample.

*Insect remains*

Single fragments of *Cryptophagus* sp., Ptinidae sp, and a fly were recorded from the minute float which was otherwise predominantly charcoal.

**Summary of Period 5a**

Most of the samples were nearly barren, but a few contained modest numbers of insects and a few plant remains. Small numbers of grain pests and decomposers were present, but the most notable components were the spider beetle *Tipnus unicolor* and other 'domestics' typical of buildings of quite a high standard. *Daphnia ephippia* were recorded from several samples. Evidence of food plants, including fig, grape and some cereal grains was present.

**Period 5b (16th Century)**

Group 1.13

1.13.2

***Context 1082, Sample 27***

Light to mid yellow-brown dry crumbly slightly silty medium sand with limestone, charcoal, mortar and tile present in small amounts.

*Plant remains*

There were no plant remains in this 1kg test sample.

*Insect remains*

The minute float contained a fragment of fly puparium and single individuals of five beetle taxa recorded from many other Coffee Yard samples.

Group 1.15

1.15.2

***Context 1038, Sample 19***

The sample from this context was a mid brown dry to moist crumbly brittle fine to coarse sand with mortar flecks and some tile. Further analysis was deemed unprofitable.

Group 2.11

2.11.2

***Context 2091, Sample 31***

Light-mid yellowish grey brown dry crumbly silty fine sand with patches of light yellowish grey clay silt and small amounts of mortar, charcoal and stone.

*Plant remains*

There were two taxa in the float from a 3kg test sample. These were *Chara* sp., whose origin must have been an aquatic habitat, and *Juncus* sp., which does not provide any specific information, but is likely also to indicate wet to waterlogged soils.

*Insect remains*

A fragment of fly puparium and four beetle taxa, all single individuals, were present in the minute flot. The record of *Helophorus* sp. amongst these possibly reinforces the hypothesis that the material was brought from an aquatic habitat. *Helophorus* are, however, common in supposed 'background' faunas from many urban deposits in York.

2.11.3

***Context 2090, Sample 28***

Mid yellow-brown dry crumbly slightly clay sandy silt with large quantities of mortar and a little tile.

*Plant remains*

The residue from a bulk-sieved sample yielded *Fumaria* sp(p)., while the 3kg test sample contained *Hyoscyamus niger*, *Stachys* sp(p). and *Juncus* sp(p) .

*Insect remains*

The tiny flot contained two mites, two *Tipnus unicolor*, a single *Anobium punctatum* and another, undetermined, beetle.

2.11.4

***Context 2077, Sample 26***

This was a light brown dry crumbly silty fine sand, with mortar and tile in some abundance and several small lumps of brown clay silt coated in mortar. It was rejected for analysis of beetle and plant remains.

***Context 2060, Sample 25***

As the sample consisted entirely of large lumps of mortar it was regarded as unsuitable for biological analysis.

2.11.6

***Context 2066, Sample 21***

Light to mid yellow-brown dry moist crumbly silty fine to coarse sand with mortar/plaster in abundance, some tile and few stones.

*Plant remains*

A 3kg test sample contained *Juncus bufonius* and a bulk-sieved washover yielded *Sambucus nigra*.

*Insect remains*

While mainly charcoal, the tiny flot also contained single individuals of *Corticaria* sp., *Lathridius minutus* group, *Philonthus* sp. and *Niptus hololeucus*. The last, the 'golden spider beetle' is rarely recorded from any but early modern deposits and may well be a recent importation. The records of *N. hololeucus* from earlier deposits at other sites are from layers with known or suspected later contamination.

2.11.7

***Context 2059, Sample 20***

The sample consisted of a mid brown dry to moist crumbly brittle fine to coarse sand with mortar flecks and a little tile. Its composition indicated that it was unlikely to yield anything of interest.

2.11.8

***Context 2058, Sample 18***

No further action was taken with this, obviously sterile, very golden brown sandy mortar.

2.11.9

***Context 2080, Sample 24***

Light to mid grey-brown moist crumbly silty fine sand.

*Plant remains*

A 3kg test sample contained *Fumaria* sp(p). and *Juncus* sp(p).

*Insect remains*

The flot was minute and there were single individuals of seven beetle species, all taxa frequently occurring elsewhere, and few fly fragments.

2.11.13

**Context 2055, Sample 16**

Light to mid yellowish-grey, slightly moist crumbly silty fine to coarse sand with some brick, tile, mortar and plaster. No insect analysis was undertaken.

*Plant remains*

There were no identifiable plant remains in the washover and residue from a bulk--sieved sample.

2.11.15

**Context 2079, Sample 47**

Mid to dark grey-brown dry to moist crumbly sandy silt with abundant, mortar and tile, some limestone and lumps of brown silt.

*Plant remains*

The float from a 1kg test produced only *Juncus* sp(p).

*Insect remains*

The tiny flot gave a total of eleven individuals of four beetle taxa common to many assemblages from this site - the grain pests *Sitophilus granarius* (six individuals) and *Oryzaephilus surinamensis*, and the 'dry' decomposers *Cryptophagus* sp. and *Tipnus unicolor*.

**Context 2128, Sample 48**

Mid grey dry crumbly slightly clay silty fine to coarse sand with some mortar and a little brick and tile.

*Plant remains*



A 3kg test sample contained four plant taxa including *Ranunculus* Subgenus *Batrachium*. A bulk-sieved sample produced one additional plant taxon, which was *Picea abies* leaves.

*Insect remains*

The medium-sized flot included a wasp head, three mites, and three fly puparia. The assemblage of nine beetle taxa (N = 20) also represented was once again typical for this site, with *Tipnus unicolor* predominant.

**Context 2128, Sample 49**

Mid yellowish-grey dry crumbly silty sand with mortar in abundance, some stone and a few pieces of bone and tile.

*Plant remains*

There were *Picea abies* leaves in this bulk-sieved sample (as in Sample 48 from the same context), in a total of seven taxa, including *Ficus carica*.

*Insect remains*

While this medium sized flot produced a slightly larger insect assemblage (N = 19, S = 13), it was essentially similar in character to the previous sample. *Tipnus unicolor* was again the most abundant species (5 individuals). A mite, a wasp head and three larval beetle heads were also present.

4.1.4

**Context 4008, Sample 9**

Dark grey-brown moist crumbly humic silty fine to coarse sand with abundant mortar and a little tile and bone.

*Plant remains*

There were no identifiable plant remains in this sample.

*Insect remains*

A 1kg test sample was processed and gave a large flot, mostly of wood fragments and charcoal. The invertebrates included a spider, a mite and a relatively substantial beetle assemblage (N = 62, S = 22). Diversity was very low (alpha = 12, SE = 3), depressed by moderate numbers of a series of grain pests and domestic taxa, which doubtless bred in the building. *Aglenus brunneus* may have invaded buried organic matter at a later period, or may have lived in a rather dirty floor.

Group 4.6

4.6.3

***Context 4026, Sample 11***

Mid grey-brown moist crumbly sandy silty clay and small quantities of charcoal, mortar and tile.

*Plant remains*

There were three plant taxa represented in this 1kg test sample. These included *Thalictrum flavum* (common meadow-rue) a species common in meadows, fens and by streams.

*Insect remains*

The tiny flot featured two mites, a parasitic wasp head and four beetle species, mostly single individuals, and common to most samples from this site.

**Summary of Period 5b**

The beetles and plants from this period were rarely represented by more than a few individuals. Grain pests (*Sitophilus granarius* and *Oryzaephilus surinamensis*) and 'domestics' such as *Tipnus unicolor* accounted for much of the fauna. As in many of the samples from this site, some of the plant remains indicated aquatic habitats. Two samples contained *Picea abies* leaves.

**Period 5c (17th to 18th Century)**

Group 1.17

1.17.2

***Context 1028, Sample 12***

Mid grey dry crumbly sandy silt with abundant coal ash and coke and small quantities of tile and coal.

*Plant remains*

*Sambucus nigra* was the only plant represented in the float of this 1kg test sample.

*Insect remains*

The flot, while large, followed the pattern set by many others from Coffee Yard, Composed primarily of charcoal and slag, it also produced an assemblage of ten beetle taxa, commonly recorded from this site. mostly single individuals.

## Group 1.18

### 1.18.1

Context 1206, Sample 10

Light grey-brown dry crumbly sandy silt with abundant charcoal and mortar.

#### *Plant remains*

There were four taxa from this 1kg test sample, including *Ficus carica*.

#### *Insect remains*

The flot contained two individuals of *Tipnus unicolor*, and one each *Sitophilus granarius*, *Hister* sp. and another, undetermined, beetle.

### **Context 1009, Sample 5**

This varicoloured black to white dry crumbly fine to coarse sand with small quantities of mortar, tile, soot and coal was not examined further.

### 1.18.3

### **Context 1004, Sample 4**

Similarly the slightly red-brown dry crumbly fine sand with a little charcoal, mortar and tile that made up this sample was thought unlikely to be of further interest.

### **Context 1002, Sample 2**

The sample was a brown dry crumbly fine to coarse sand with small quantities of stone, mortar, tile and coal. No further action was taken.

## Group 2.12

### 2.12.1

### **Context 2039, Sample 15**

Light to mid grey-brown dry crumbly slightly silty fine to coarse sand with a sizeable rubble content and a little limestone and pot.

#### *Plant remains*

The 3kg test sample produced five plant taxa, including *Ficus carica*. The rough-sorted residue from the bulk-sieved sample gave only a mineralised cereal grain and a nutlet of the cornfield weed *Buglossoides arvensis*.

*Insect remains*

The small flot yielded twelve mites, a fragment of fly puparium and eight beetle taxa. With seven individuals, *Tipnus unicolor* was clearly breeding nearby at the time of deposition, but the other species were limited to single individuals.

2.12.3

***Context 2048, Sample 14***

A coprolite, unsampled for plant or insect remains.

Group 2.13

2.13.4

***Context 2025, Sample 8***

The sample from this context consisted of mortar with coal and soil embedded in it and a wood-grain impression on one face. Further analysis did not appear to be worthwhile.

Group 3.8

3.8.4

***Context 3028, Sample 69***

Mid to dark grey moist crumbly slightly clay silty fine and coarse sand with abundant charcoal, chalk/lime and mortar and a few tile fragments.

*Plant remains*

This rough sorted bulk-sieved sample produced *Vitis vinifera* and *Caucalis platycarpus* (small bur-parsley) - an introduced casual or possibly naturalised species of arable fields and waste places particularly on chalky soils.

*Insect remains*

A 3kg test sample was processed and gave a tiny flot of charcoal, slag and six beetle species. The poorly preserved assemblage was once again extremely similar in character to many others from this excavation.

Group 3.9

3.9.3

***Context 3051, Sample 60***

Very dark brown silty fine to coarse sand with tile and a few small stones.

*Plant remains*

There were no identifiable plant remains in the float of this 3kg test sample.

*Insect remains*

The medium-sized flot, composed almost entirely of charcoal and slag, also included one mite and single individuals of seven beetle species. Of the specimens that were determined, most were characteristic of the site.

3.9.5

***Context 3049, Sample 59***

Dark grey-brown dry brittle silty fine sand with mortar in abundance, some tile and iron slag or concretion.

*Plant remains*

*Ranunculus* Section *Ranunculus* was the only plant taxon in the flot of this 1kg test sample.

*Insect remains*

The small flot featured seven beetle taxa, all represented by single sclerites.

***Context 3041, Sample 57***

Dark grey-brown silty fine to coarse sand with tile and mortar in abundance and some lumps of brown silty clay.

*Plant remains*

*Papaver argemone* was the only plant taxa represented in the flot of this 1kg test sample.

*Insect remains*

The minute flot included a highly fragmented spider and single individuals of *Tipnus unicolor*, *Ptinus fur*, *Anotylus complanatus* and another, undetermined, beetle.

Group 3.12

3.12.1

***Context 3021, Sample 52***

This bulk-sieved sample was not given a sediment description.

*Plant remains*

There were no identifiable plant remains from the rough sort of this sample.

Group 3.16

3.16.1

***Context 3036, Sample 55***

This mid grey-brown to buff dry crumbly silty fine to coarse sand with abundant mortar and some tile was rejected for analysis of plant and insect remains.

Group 5.4

5.4.1

***Context 5007, Sample 6***

This soil analysis sample has not been available for examination.

**Summary of Period 5c**

Very few insect remains were recovered. The only taxon which was at all well represented was *Tipnus unicolor*, a characteristic commensal in slightly damp buildings. More general decomposer assemblages were not apparent. The evidence suggests that the structure(s) was kept fairly clean, and as well-sealed as, for example, a typical early 20th century dwelling.

There were very few plant remains; they included weeds of cultivated ground and food plants.

**Period 6 (18th to 19th Century)**

Group 4.5

4.5.1

***Context 4006, Sample 7***

Light to mid grey-brown dry crumbly silty sand with abundant mortar and some tile.

*Plant remains*

There were no identifiable plant remains in this sample.

### *Insect remains*

The tiny flot from a 3 kg test sample produced a fair-sized assemblage, with several fragments of fly puparia, a mite, a Hymenoptera sp. fragment and fourteen beetle taxa (N = 26). The presence of identifiable insect remains is a little surprising bearing in mind the lithology of this sample. *Aglenus brunneus* occurred most frequently, with ten specimens. Of the rest, only *Tipnus unicolor* and *Ptinus fur* were represented by more than single individuals.

#### 4.5.5

### **Context 4002, Sample 3**

Mid grey-brown to brown dry crumbly silty fine to coarse sand with mortar and plaster abundant and some tile.

### *Plant remains*

The only taxa present in this 1kg test sample were a sedge and a rush.

### *Insect remains*

The medium sized flot consisted mainly of charcoal, slag and wood fragments. There were many mites and several heads of beetle larvae, Diptera sp. and fragments of fly puparia. The beetle assemblage was quite considerable, indeed, the largest from this site (N = 67, S = 31). Diversity was only moderately low ( $\alpha = 23$ , SE = 6) and the outdoor component fairly well represented (six taxa, seven individuals, %NOB = 10). These were taxa likely to occur in town yards of the period. Most of the beetles were coded as decomposers (%NRT = 72), and over half of them were 'rd' taxa (%NRD = 40). The low diversity of the decomposer- component indicated a breeding assemblage ( $\alpha_{RT} = 10$ , SE = 2). Foul- matter habitats were represented only by a single individual of *Aphodius* sp., probably of 'background' origin. As in sample 7, the most abundant taxon was *Aglenus brunneus* (13 individuals), followed by *Tipnus unicolor* (8). The other more abundant taxa were typical domestics – *Anobium punctatum* and *Ptinus fur* (five each), *Niptus hololeucus* (four) and *Dienerella* sp. (three). Apart from *A. brunneus*, possibly a post-burial invader, this was a characteristic pre-central heating clean house fauna with some 'background' elements.

#### Group 4.8

#### 4.8.4

### Context 4001, Sample 1

Grey dry crumbly silty fine to coarse sand with limestone, mortar and tile in abundance and a few small stones.

### *Plant remains*

There was only *Juncus* sp. in the float of this 1kg test sample.

### *Insect remains*

The small flot included several mites and fifteen species of beetle (N = 28). The composition of this assemblage followed the general pattern set by sample 3, context 4002, with spider beetles (*Tipnus unicolor*, *Niptus hololeucus* and *Ptinus fur*) and *Aglenus brunneus* (four) and *Lathridius minutus* gp. (three) predominant. The majority of the beetles were decomposers (%NRT = 79, %NRD = 46) and this component was of very low diversity (alpha RT = 7, SE = 3).

### **Summary of Period 6**

Perhaps surprisingly, these late deposits gave quite substantial numbers of insect remains. They were, however, rather poorly preserved (although by no means extremely badly rotted). It seems likely that preservation was as a result of fairly dry soil conditions rather than by waterlogging (the more normal mechanism). The implications of the assemblages were broadly as for the earlier material - reasonably clean, a little damp, but conditions which would have been regarded as normal in homes until the past 50 years or so. The preservational conditions were unsuitable for plant remains; there were no more than two taxa represented in any sample.

### **A general discussion of the plant and insect remains**

Most of the samples from Coffee Yard contained very few plant remains and often the same taxa occurred repeatedly, for example *Sambucus nigra*, *Juncus bufonius*, *Papaver argemone*, *Alisma* sp(p). and *Ficus carica*. The reason for this is not clear but is presumably related to the poor conditions for preservation in these deposits. There is a possibility that there is a fair amount of residual material in some of the contexts, according to the pottery evidence (Sarah Jennings pers comm) and this might explain some of the seeds which are known to survive well and occur in residual deposits, for example *Ficus carica*.

It is likely that the assemblages of plant remains in each of these samples did not all arrive in the context by the same taphonomic route. Thus some may be from rubbish on the floor, some brought in on muddy boots or the feet of animals, some brought in with the water supply and some redistributed from earlier deposits. This means that the following interpretations can only be very tentative. There could also be a certain amount of modern contamination in some of the contexts.

The presence of a few aquatic plants in several samples is of interest. How they arrived and became incorporated into the samples is not easy to interpret, but perhaps water was being brought to the site from a nearby natural body of water (the River Foss perhaps, or a ditch or pond) and the propagules of plants such as *Chara* sp(p)., *Alisma* sp(p)., *Ranunculus* subgenus *Batrachium*, *Lemna* sp(p). and *Zannichellia palustris* became incorporated into the deposits. *Zannichellia palustris* (horned pondweed) occurs in rivers, streams, ditches and pools of fresh or brackish water. It has been recorded fairly frequently in Yorkshire and occurs from time to time in archaeological deposits in York.

There were a few food plants, mostly charred cereal grains. None of the grains were very well preserved and identification is therefore limited to genus. Other food plants include fig, grape, blackberry, raspberry, elderberry; the last three of these could be from weed plant rather than food, however.



There are a few individual taxa whose presence is of interest. *Buglossoides arvensis* (*Lithospermum arvense* L., corn gromwell or bastard alkanet) is a plant mainly found in arable fields and more common south of a line from the Humber to the Severn (Clapham *et al.* 1987) but recorded around York area in the past (Baker 1899, Baines 1840, Lees 1888). Another unusual arable weed is *Caucalis platycarpos* (small bur-parsley) a formerly rare introduced casual of arable fields and waste places which is now virtually extinct. It has been recorded as very rare in Yorkshire by Lees (1888), Baines (1840) and Baker (1899).

There are several other arable weeds from this site, including one record of *Agrostemma githago* and one of *Anthemis cotula*. Various other taxa could have come in from arable fields but could also be from disturbed ground or wasteland, for example *Vicia cf. hirsuta* and *Fumaria* sp(p). *Reseda lutea* (wild mignonette) occurs on dry calcareous soils especially on disturbed ground so this may also represent an arable weed.

There were a few seeds of *Silene gallica* in Sample 22, Context 4037. One of the three varieties of the small flowered catchfly (*Silene gallica* var. *quinquevulnera* (L.) Mert, & Koch) was formerly grown in gardens for its ornamental flowers and is now a rare casual, except in the Channel Islands where it is native (Clapham *et al.* 1987). It is just as likely, however, that this seed represents an arable weed as the two other varieties are casual arable weeds of dry sandy soils. It is not possible to determine the variety from the seeds.

*Picea abies*, which is not a native British species but is introduced, commonly planted, and notably used for Christmas trees, occurred in three different contexts. It is possible that these leaves were from modern contamination, but are likely to preserve quite well, so a contaminative origin is by no means certain.

The first point to make concerning the insect remains from the Coffee Yard site is to emphasise the very unpromising nature of both the deposits and their archaeological position. The deposits themselves were generally friable, almost dry, light coloured and with a rather low organic content. There is little to suggest that they had remained water-logged since they were laid down, and it may be that insect preservation was primarily a result of low water content and 'mummification'. The state of most of the fossils - rather reddened and fragile - was compatible with this. The archaeological nature of the material was equally discouraging: it was to be predicted that a property of fairly high quality would be kept dry and clean, conditions unfavourable to preservation as well as the development of large insect populations, we are, then, very fortunate to have this opportunity to test hypotheses about conditions in the building.

The insects clearly indicate that conditions were relatively dry, and that there was no long-term accumulation of large quantities of decaying organic matter. The 'decomposer' habitats indicated are all typical domestic ones - stored products and perhaps small amounts of dryish litter. Grain beetles were generally present in small numbers in the samples, and occasionally were so numerous as to suggest that infested grain was present in the building. Many of the samples from contexts dated to the earlier phases contained the ephippia ('resting eggs') of water fleas, *Daphnia* sp. (not insects but Crustacea) and a few included resting eggs of *Lophopus crystallinus*, an encrusting bryozoan. These may have been brought in buckets of water from low-quality sources (or these aquatics may even have survived in an open-topped well), but it is more probable that they originated in imported deposits laid down under water - river flood silts even. Some elements of the insect fauna may have originated in the same way, but there was no clear waterside or aquatic component in the assemblages.

The spider beetles *Tipnus unicolor* and *Niptus hololeucus* demand further discussion. *T. unicolor* has often been recorded in quite large numbers in Roman deposits (Hall *et al.* 1980, Kenward *et al.* 1986),

and (on rather less evidence) has become regarded as equally typical of later medieval and early modern deposits. The present site reinforces this pattern; for it is consistently present in the samples, and often relatively abundant. *T. unicolor* is, however, very rare (and then possibly contaminant) in Anglo-Scandinavian layers. It is regarded as characteristic of long-lived, somewhat damp, buildings (O'Farrell and Butler 1948), although there are records from natural habitats (e.g. Crowson 1971). This fascinating spider beetle will be discussed *in extenso* by Allison and Kenward (forthcoming); changes in its abundance are most probably related to the longevity of buildings, so it may prove to be an important 'indicator species'. *Niptus hololeucus* is another spider beetle with an interesting distribution through time. There are records from Roman and other pre-modern deposits (Buckland 1975, Buckland 1979), but these appear to relate to contexts where there was clear evidence, or at least a strong possibility, of recent contamination. It may be that *N. hololeucus* was only brought to Britain in the past few hundred, or even 150, years. Alternatively, as appears to be the case for the grain pest taxa, it may have been introduced on more than one occasion, and only have become firmly established in modern heated buildings.

This study of insects from unpromising deposits has proved very much worthwhile, and strongly vindicates speculative investigations using rapid-scanning techniques.

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## Acknowledgements

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Appendix 1. Complete list of plant and invertebrate taxa recorded from samples from excavations at Coffee Yard, with number of records. All plant remains were preserved by anoxic waterlogging unless otherwise indicated. 'Sp(p)' is used for plant taxa recorded only to genus level, even where only single specimens were recorded. Ec – ecological code(s); no. recs – number of assemblages with that taxon.

Key: ec—ecological codes (explained in Appendix 5); no. recs—number of records (across all subsamples).

## Plants

Taxon	Vernacular	Parts recorded	No. recs
Coniferae	conifer	leaf/leaves	3
<i>Salix</i> sp(p).	willow	bud(s)	4
<i>Quercus</i> sp(p).	oak	bud(s) and/or bud-scale(s)	1
<i>Ficus carica</i> L.	fig	seed(s)	11
<i>Polygonum hydropiper</i> L.	water-pepper	fruit(s)	1
<i>Atriplex</i> sp(p).	oraches	seed(s)	2
<i>Stellaria media</i> (L.) Vill.	chickweed	seed(s)	1
<i>Cerastium</i> sp(p).	mouse-ear chickweeds	seed(s)	1
<i>Agrostemma githago</i> L.	corncockle	mineralised seed(s)	1
<i>Silene gallica</i> L.	small-flowered catchfly	seed(s)	1
<i>Caltha palustris</i> L.	marsh marigold	seed(s)	1
<i>Ranunculus</i> Section <i>Ranunculus</i>	meadow/creeping/bulbous		
	buttercup	achene(s)	10
<i>R.</i> Subgenus <i>Batrachium</i>	water crowfoots	achene(s)	5
<i>Thalictrum flavum</i> L.	common meadow rue	achene(s)	1
<i>Papaver argemone</i> L.	long prickly-headed poppy	seed(s)	15
<i>Fumaria</i> sp(p).	fumitories	mineralised seed(s)	1
<i>Fumaria</i> sp(p).	fumitories	seed(s)	7
<i>Brassica</i> sp(p).	cabbages, etc.	mineralised cotyledon(s)	1
<i>Reseda lutea</i> L.	wild mignonette	seed(s)	2
<i>Rubus idaeus</i> L.	raspberry	seed(s)	1
<i>R. fruticosus</i> agg.	blackberry/bramble	seed(s)	5
<i>Potentilla</i> cf. <i>erecta</i> (L.) Rauschel	?tormentil	achene(s)	1
<i>Potentilla</i> sp(p).	cinquefoils, etc.	achene(s)	3
Leguminosae	pea family	charred seed(s)	1
<i>Vicia</i> cf. <i>hirsuta</i> (L.) S. F. Gray	?hairy tare	mineralised seed(s)	1
<i>Euphorbia helioscopia</i> L.	sun spurge	seed(s)	1
<i>Vitis vinifera</i> L.	grape	seed(s)	4
<i>Hypericum</i> sp(p).	St John's worts	seed(s)	3
<i>Conium maculatum</i> L.	hemlock	mericarp(s)	1
<i>Caucalis platycarpus</i> L.		mericarp(s)	1
<i>Galium</i> cf. <i>aparine</i> L.	?goosegrass, cleavers	fruit(s)	1
<i>Buglossoides arvensis</i> (L.) I. M. Johnston	corn gromwell, 'stone-hard'	nutlet(s)	1
<i>Galeopsis</i> sp(p).	hemp-nettles	nutlet(s)	1
<i>Lamium</i> Section <i>Lamiopsis</i>	annual dead-nettles	nutlet(s)	1
<i>Stachys</i> sp(p).	woundworts	nutlet(s)	11+?1

<i>Hyoscyamus niger</i> L.	henbane	seed(s)	4
<i>Euphrasia/Odontites</i> sp(p).	eyebright/bartsia	seed(s)	1
<i>Sambucus nigra</i> L.	elder	seed(s)	26
<i>Anthemis cotula</i> L.	stinking mayweed	charred achene(s)	1
<i>Sonchus asper</i> (L.) Hill	prickly sow-thistle	achene(s)	1
<i>Alisma</i> sp(p).	water-plantains	carpel(s) and/or seed(s)	13
<i>Zannichellia palustris</i> L.	horned pondweed	fruit(s)	1
<i>Juncus inflexus</i> L./ <i>J. effuses</i> L./ <i>J. conglomeratus</i> L.	hard/soft/compact rush	seed(s)	4
<i>J. cf. gerardi</i> Loisel.	?mud rush	seed(s)	1
<i>J. bufonius</i> L.	toad rush	seed(s)	25
<i>J. articulatus</i> L.	jointed rush	seed(s)	1
<i>Juncus</i> sp(p).	rushes	seed(s)	18
Gramineae	grasses	charred caryopsis/es	1
Gramineae	grasses	waterlogged caryopsis/es	1
Cerealia indet.	cereals	charred caryopsis/es	7
Cerealia indet.	cereals	mineralised caryopsis/es	1
<i>Poa annua</i> L.	annual meadow-grass	caryopsis/es	1
<i>Triticum</i> sp(p).	wheats	charred caryopsis/es	3+?1
cf. <i>Secale cereale</i> L.	?rye	charred caryopsis/es	1
<i>Hordeum</i> sp(p).	barley	charred caryopsis/es	2
<i>Avena</i> sp(p).	oats	charred caryopsis/es	6
<i>Lemna</i> sp(p).	duckweeds	seed(s)	1
<i>Typha</i> sp(p).	bulrushes	seed(s)	1
Cyperaceae	sedge family	nutlet(s)	5
<i>Eleocharis palustris</i> sensu lato	common spike-rush	nutlet(s)	3
<i>Carex</i> sp(p).	sedges	nutlet(s)	15
<i>Sphagnum</i> sp(p).		leaf/leaves	5
Characeae		oogonium/ia	2

## Invertebrates

		<i>Bembidion</i> sp.	oa	1	
		<i>Laemostenus</i> sp.	ss	1	
Taxon	ec	no. recs	Carabidae sp.	ob	5
<b>Crustacea - Cladocera</b>			Carabidae sp. A	ob	2
* <i>Daphnia</i> sp. (ephippium)	oa-w	10	Carabidae sp. B	ob	2
			Colymbetinae sp.	oa-w	1
<b>Insecta</b>			<i>Helophorus</i> sp.	oa-w	4
<b>Hemiptera</b>			<i>Cercyon</i> sp.	u	3
Heteroptera sp.	u	1	Histerinae sp.	rt	5
			<i>Catops</i> sp.	u	1
<b>Diptera</b>			?Catopinae sp.	u	1
*Diptera sp. (adult)	u	12	<i>Micropeplus</i> sp.	rt	1
*Diptera sp. (puparium)	u	14	? <i>Omalius caesum</i> or <i>italicum</i>	rt-sf	1
			? <i>Omalius</i> sp.	rt	1
<b>Coleoptera</b>			<i>Xylodromus concinnus</i> (Marsham)	rt-st	13
<i>Notiophilus</i> sp.	oa	1	<i>Anotylus complanatus</i> (Erichson)	rt-sf	4
<i>Trechus obtusus</i> or <i>quadristriatus</i>	oa	1	<i>Anotylus nitidulus</i> (Gravenhorst)	rt	1

<i>Anotylus rugosus</i> (Fabricius)	rt	1	<i>Dienerella</i> sp.	rd-sf	2
<i>Anotylus tetracarinatus</i> (Block)	rt	2	<i>Corticaria</i> sp.	rt-sf	4
<i>Stenus</i> sp.	u	1	<i>Corticaria</i> sp. A	rt-sf	3
<i>Gyrophynus</i> sp.	rt	1	<i>Corticaria</i> sp. B	rt-sf	3
<i>Xantholinus linearis</i> (Olivier)	rt-sf	1	<i>Aglenus brunneus</i> (Gyllenhal)	rt-ss	15
<i>Philonthus</i> sp.	u	1	<i>Blaps</i> sp.	rt-ss	1
<i>Quedius</i> sp.	u	1?1	<i>Tenebrio obscurus</i> Fabricius	rt-ss	3
Staphylininae sp.	u	5	<i>Tenebrio</i> sp. indet.	rt-ss	2
Aleocharinae sp.	u	5	<i>Anthicus formicarius</i> (Goeze)	rt-st	1
Aleocharinae sp. A	u	2	<i>Apion</i> sp.	oa-p	2
Aleocharinae sp. B	u	2	<i>Barynotus obscurus</i> (Fabricius)	oa-p	1
<i>Trox scaber</i> (Linnaeus)	rt-sf	4	<i>Sitophilus granarius</i> (Linnaeus)	g-ss	27
<i>Aphodius</i> sp.	ob-rf	10?2	<i>Ceutorhynchus</i> sp.	oa-p	2
<i>Cyphon</i> sp.	oa-d	1	Ceuthorhynchinae sp.	oa-p	1
<i>Dermestes</i> sp.	rt-sf	3	?Curculionidae sp.	oa	1
Dermestidae sp.	rt-sf	1?1	Curculionidae sp.	oa	7
<i>Xestobium rufovillosum</i> (Degeer)	l-st	1?1	Coleoptera sp. indet.	u	22
<i>Anobium punctatum</i> (Degeer)	l-sf	24	Coleoptera sp. indet. A	u	4
<i>Ptilinus pectinicornis</i> (Linnaeus)	l-sf	1	Coleoptera sp. indet. B	u	4
<i>Niptus hololeucus</i> (Falderman)	rd-ss	6	Coleoptera sp. indet. C	u	1
<i>Tipnus unicolor</i>			*Coleoptera sp. (larva)	u	3
(Piller & Mitterpacher)	rt-ss	35			
<i>Ptinus fur</i> (Linnaeus)	rd-sf	22?1	<b>Hymenoptera</b>		
Ptinidae sp. indet.	rd	3	*Hymenoptera Parasitica sp.	u	3
<i>Korynetes caeruleus</i> (Degeer)	rt-sf	1	*Formicidae sp.	u	1
<i>Rhizophagus</i> sp.	u	2	*Hymenoptera sp.	u	2
<i>Oryzaephilus</i>					
<i>surinamensis</i> (Linnaeus)	g-ss	25	<b>Arachnida</b>		
<i>Cryptophagus scutellatus</i> Newman	rd-st	3?1	*Araneae sp.	u	5
<i>Cryptophagus</i> sp.	rd-sf	11?1	*Acarina sp.	u	26
<i>Cryptophagus</i> sp. A	rd-sf	4			
<i>Cryptophagus</i> sp. B	rd-sf	4	<b>Mollusca</b>		
<i>Atomaria</i> sp.	rd	9?1	*Gastropoda sp.	u	4
<i>Anommatus duodecimstriatus</i>					
(Muller)	rt-st	1	<b>Bryozoa - Phylactolaemata</b>		
<i>Mycetaea hirta</i> (Marsham)	rd-ss	4	* <i>Lophopus crystallinus</i> (Pallas)	oa-w	1
<i>Lathridius minutus</i> group	rd-st	9			
<i>Enicmus</i> sp.	rt-sf	1			

*Appendix 2. Lists of plant remains and other components of the samples from Coffee Yard in context and sample order (and alphabetically within each list).*

*'Amount' records a semi-quantified abundance on a three point scale from 1—one or a few specimens or fragments, or a small amount in relation to the original sample size, to 3—abundant remains or a major component of the sample. Sample weights, where known, can be read from Appendix 3. Note that records originally presented as Picea abies needles are here rendered as 'Coniferae'.*

<b>Context 1028, Sample 12/TF</b>		Juncus sp(p).	1
charcoal	2		
Sambucus nigra	1	<b>Context 1082, Sample 27/T</b>	
		brick/tile	2
<b>Context 1043, Sample 22/SPT</b>		charcoal	1
beetles	1	mammal bone	1
brick/tile	1	mortar	3
charcoal	1	sand	3
Fe nail(s)	1		
fish bone	2	<b>Context 1115, Sample 53/RW</b>	
mammal bone	1	burnt mammal bone	1
metal objects	1	Carex sp(p).	1
metallic slag	1	Cerealial indet.	1
mortar	2	charcoal	2
sand	2	eggshell fgts	1
		Eleocharis palustris sl	1
<b>Context 1080, Sample 37/TF</b>		Ficus carica	1
Sambucus nigra	1	fish bone	1
		glass	1
<b>Context 1080, Sample 38/RW</b>		mammal bone	1
?root casts	1	Ranunculus Section Ranunculus	1
Atriplex sp(p).	1	Rubus fruticosus agg.	1
brick/tile	1	Sambucus nigra	1
Caltha palustris	1	snails	1
Carex sp(p).	1	Stachys sp(p).	1
charcoal	1	stones	1
eggshell fgts	1	Vitis vinifera	1
Eleocharis palustris sl	1	wood chips	2
Euphorbia helioscopia	1		
Ficus carica	1	<b>Context 1125, Sample 45/R</b>	
fly puparia	1	brick/tile	1
Lamium Section Lamiopsis	1	charcoal	1
mammal bone	1	mammal bone	1
marine mollusc shell fgts	1	mortar	2
mortar	1	stones	1
Ranunculus Section Ranunculus	1		
Sambucus nigra	1	<b>Context 1126, Sample 45/T+</b>	
snails	1	Alisma sp(p).	1
Sonchus asper	1	brick/tile	2
Stellaria media	1	charcoal	1
stone	1	coal	1
		Fe object(s)	1
<b>Context 1080, Sample 38/TF</b>		Juncus sp(p).	1

mammal bone	1		
mineralised material	2	<b>Context 1209, Sample 63/TF</b>	
mortar	2	Alisma sp(p).	1
Ranunculus Subgenus Batrachium	1	Juncus sp(p).	1
Sambucus nigra	1		
sand	2	<b>Context 1251, Sample 73/SPT</b>	
snails	1	brick/tile	1
Sphagnum sp(p). (lvs)	1	burnt mammal bone	1
stones	1	Cerealia indet.	1
		charcoal	1
<b>Context 1178, Sample 56/T+</b>		fish bone	1
bird bone	1	mortar	1
brick/tile	1	sand	1
charcoal	1	small mammal bone	1
coal	1		
eggshell fgts	1	<b>Context 1251, Sample 75/RW</b>	
Ficus carica	1	brick/tile	1
fish bone	1	charcoal	3
fish scale	1	fish bone	2
Juncus sp(p).	1	mortar	1
mammal bone	1	Rubus fruticosus agg.	1
mortar	1	stones	1
mussel shell fgts	1		
otoliths	1	<b>Context 1251, Sample 75/T+</b>	
Papaver argemone	1	Alisma sp(p).	1
Salix sp(p). (b)	1	bird bone	1
sand	2	Brassica sp(p). (min cot)	1
stones	1	brick/tile	2
		Carex sp(p).	1
<b>Context 1206, Sample 10/T</b>		charcoal	3
Atriplex sp(p).	1	fish bone	1
brick/tile	1	fish scale	1
charcoal	1	Juncus bufonius	1
coal	1	mammal bone	1
Cyperaceae	1	Papaver argemone	1
Ficus carica	1	Ranunculus Section Ranunculus	1
fish bone	1	Sambucus nigra	1
Juncus bufonius	1	sand	1
mammal bone	1	shellfish fgts	1
mortar	3	Sphagnum sp(p). (lvs)	1
sand	1		
		<b>Context 1251, Sample 76/T</b>	
<b>Context 1209, Sample 63/RW</b>		brick/tile	2
brick/tile	1	Carex sp(p).	1
burnt mammal bone	1	Cerealia indet.	1
charcoal	1	charcoal	2
eggshell fgts	1	coal	1
fish bone	1	eggshell fgts	1
mammal bone	1	fish bone	1
mortar	2	fish scale	1
Ranunculus Section Ranunculus	1	Juncus bufonius	2
stones	2	mammal bone	1
Vitis vinifera	1	metallic slag	1



Papaver argemone	1	Papaver argemone	1
sand	1	Polygonum hydropiper	1
Stachys sp(p).	1	Ranunculus Section Ranunculus	1
		Ranunculus Subgenus Batrachium	1
<b>Context 1251, Sample 76/V</b>		Sambucus nigra	1
Agrostemma githago (min)	1	sand	2
Carex sp(p).	1	Stachys sp(p).	1
Cerealia indet.	2	stones	1
cf. Secale cereale	1		
Fumaria sp(p). (min)	1	<b>Context 1289, Sample 83/T+</b>	
Triticum sp(p).	1	Avena sp(p).	1
		brick/tile	1
<b>Context 1266, Sample 77/TF</b>		Cerealia indet.	1
Alisma sp(p).	1	charcoal	1
Carex sp(p).	1	coal	1
Hypericum sp(p).	1	fish bone	1
Lemna sp(p).	1	Hordeum sp(p).	1
		Juncus inflexus/effusus/conglomeratus	1
<b>Context 1267, Sample 81/T+</b>		mammal bone	1
Alisma sp(p).	1	mortar	1
Avena sp(p).	1	oyster shell fgts	2
brick/tile	1	pottery	1
Carex sp(p).	1	Sambucus nigra	1
charcoal	1	sand	2
coal	1	Sphagnum sp(p). (lvs)	1
fish bone	1	Stachys sp(p).	1
fish scale	1	stones	1
Hyoscyamus niger	1		
mammal bone	1	<b>Context 1290, Sample 85/TF</b>	
mortar	1	charcoal	1
Papaver argemone	1	Juncus bufonius	1
Ranunculus Section Ranunculus	1	Ranunculus Subgenus Batrachium	1
Salix sp(p). (b)	1		
Sambucus nigra	2	<b>Context 1315, Sample 92/T+</b>	
sand	2	brick/tile	1
shellfish fgts	1	charcoal	1
Triticum sp(p).	1	coal	1
		Cyperaceae	1
<b>Context 1269, Sample 79/T+</b>		fish bone	1
Alisma sp(p).	1	Hyoscyamus niger	1
bird bone	2	Juncus sp(p).	1
brick/tile	2	mammal bone	1
charcoal	1	metallic slag	1
coal	1	mortar	1
Conium maculatum	1	pottery	1
Cyperaceae	1	Sambucus nigra	1
eggshell membrane fgts	1	sand	2
Fe object(s)	1	Stachys sp(p).	1
fish bone	1	stones	2
fish scale	1		
Hyoscyamus niger	1	<b>Context 1315, Sample 93/T+</b>	
mortar	2	Avena sp(p).	1
oyster shell fgts	1	brick/tile	1

charcoal	1		
fish bone	1	<b>Context 2066, Sample 21/W</b>	
fish scale	1	charcoal	2
Galium cf. aparine	1	Sambucus nigra	1
Hypericum sp(p).	1		
mammal bone	1	<b>Context 2079, Sample 47/TF</b>	
metallic slag	1	Juncus sp(p).	1
mortar	1		
Sambucus nigra	1	<b>Context 2080, Sample 24/T</b>	
sand	2	brick/tile	1
shellfish fgts	1	charcoal	1
Stachys sp(p).	1	eggshell fgts	1
Zannichellia palustris	1	Fumaria sp(p).	1
		Juncus inflexus/effusus/conglomeratus	1
		Juncus sp(p).	1
<b>Context 2039, Sample 15/T</b>		marine mollusc shell fgts	1
?cockle shell fgts	1	mortar	2
Alisma sp(p).	1	snails	1
bird bone	1		
brick/tile	2	<b>Context 2090, Sample 28/R</b>	
charcoal	2	brick/tile	1
coal	1	charcoal	1
Ficus carica	1	eggshell fgts	1
fish scale	1	fish bone	1
Juncus bufonius	1	fish scale	1
mammal bone	1	Fumaria sp(p).	1
metallic slag	1	limestone	1
mortar	2	mortar	1
oyster shell fgts	1	stones	1
sand	2		
Sphagnum sp(p). (lvs)	1	<b>Context 2090, Sample 28/T</b>	
Stachys sp(p).	1	brick/tile	1
stones	2	charcoal	1
		eggshell fgts	1
<b>Context 2039, Sample 15/V</b>		Hyoscyamus niger	1
Buglossoides arvensis	1	Juncus bufonius	1
Cerealia indet. (min)	1	Juncus sp(p).	1
mineralised material	1	marine mollusc shell fgts	1
		mortar	2
<b>Context 2055, Sample 16/RW</b>		sand	1
?cockle shell fgts	1	Stachys sp(p).	1
brick/tile	2	stones	1
charcoal	1		
coal	1	<b>Context 2091, Sample 31/R</b>	
fish scale	1	?root casts	1
mammal bone	1	brick/tile	1
metallic slag	1	charcoal	1
mortar	1	eggshell fgts	1
oyster shell fgts	1	fish bone	2
plaster	1	mortar	1
pottery	1	snails	1
		stones	1
<b>Context 2066, Sample 21/TF</b>			
Juncus bufonius	1		

<b>Context 2091, Sample 31/TF</b>		brick/tile	2
Characeae	1	charcoal	2
Juncus sp(p).	1	coal	1
		Ficus carica	1
<b>Context 2101, Sample 33/TF</b>		fish bone	1
Juncus sp(p).	1	fish scale	1
Potentilla sp(p).	1	Juncus bufonius	1
		mammal bone	1
<b>Context 2107, Sample 44/T+</b>		mortar	2
brick/tile	1	mussel shell fgts	1
charcoal	1	plaster	1
coal	1	Reseda lutea	1
eggshell fgts	1	shellfish fgts	1
fish bone	1		
fish scale	1	<b>Context 2128, Sample 48/RW</b>	
Juncus bufonius	1	charcoal	2
mammal bone	1	Coniferae (needles)	1
mortar	2	Sambucus nigra	1
Papaver argemone	1	snails	1
Sambucus nigra	1	Stachys sp(p).	1
sand	2		
		<b>Context 2128, Sample 48/T+</b>	
<b>Context 2108, Sample 39/T+</b>		bird bone	1
bird bone	1	brick/tile	2
brick/tile	1	charcoal	2
charcoal	1	coal	1
coal	1	Fe nail(s)	1
Cyperaceae	1	fish bone	1
Daphnia (ephippia)	1	Juncus bufonius	2
eggshell fgts	1	mammal bone	1
Eleocharis palustris sl	1	metallic slag	1
fish bone	1	mortar	2
Gramineae	1	oyster shell fgts	1
Juncus bufonius	1	Ranunculus Subgenus Batrachium	1
Juncus sp(p).	1	Sambucus nigra	1
mammal bone	1	sand	1
mortar	1	Stachys sp(p).	1
shell fgts	1		
Typha sp(p).	1	<b>Context 2128, Sample 49/RW</b>	
		Carex sp(p).	1
<b>Context 2110, Sample 40/TF</b>		charcoal	2
Juncus sp(p).	1	Coniferae (needles)	1
Papaver argemone	1	Ficus carica	1
		Fumaria sp(p).	1
<b>Context 2126, Sample 54/TF</b>		Rubus fruticosus agg.	1
charcoal	2	Salix sp(p). (b)	1
Ficus carica	1	Sambucus nigra	1
Juncus bufonius	1	small mammal bone	1
		snails	1
<b>Context 2127, Sample 49/TF</b>			
charcoal	2	<b>Context 2171, Sample 78/T+</b>	
		bird bone	1
<b>Context 2127, Sample 50/T+</b>		brick/tile	1

charcoal	2	burnt mammal bone	1
coal	2	charcoal	2
fish bone	1	fish scale	1
fish scale	1	Hordeum sp(p).	1
mammal bone	1	limestone	1
mortar	1	mammal bone	1
oyster shell fgts	1	mortar	2
sand	2	Sambucus nigra	1
		stones	2
		Triticum sp(p).	1
<b>Context 2173, Sample 80/T+</b>			
burnt mammal bone	3		
burnt stone	1	<b>Context 2206, Sample 95/T+</b>	
charcoal	3	Anthemis cotula (ch)	1
fish bone	1	brick/tile	1
fish scale	1	charcoal	1
Juncus articulatus	1	coal	1
Juncus inflexus/effusus/conglomeratus	1	eggshell fgts	1
mammal bone	1	fish bone	1
sandstone	1	fish scale	1
shellfish fgts	1	Juncus bufonius	1
		mammal bone	1
<b>Context 2174, Sample 82/TF</b>		mortar	1
charcoal	1	Sambucus nigra	1
Juncus bufonius	1	sand	1
		stones	1
<b>Context 2179, Sample 87/R</b>			
brick/tile	1	<b>Context 2206, Sample 95/V</b>	
charcoal	1	cf. Triticum sp(p).	1
mammal bone	1		
mortar	1	<b>Context 3018, Sample 65/TF</b>	
stones	1	Alisma sp(p).	1
		Sphagnum sp(p). (lvs)	1
<b>Context 2179, Sample 87/TF</b>			
Juncus bufonius	1	<b>Context 3021, Sample 51/V</b>	
		textile fgts	1
<b>Context 2180, Sample 88/R</b>			
charcoal	2	<b>Context 3028, Sample 69/T+</b>	
coal	1	Alisma sp(p).	1
mammal bone	1	brick/tile	1
mortar	1	Carex sp(p).	1
stones	2	charcoal	2
		coal	1
<b>Context 2180, Sample 88/TF</b>		fish bone	1
Juncus bufonius	1	fish scale	1
		Juncus sp(p).	1
<b>Context 2184, Sample 91/V</b>		mammal bone	1
Cerealia indet.	1	metallic slag	1
Vicia cf. hirsuta (min)	1	mortar	1
Vitis vinifera	2	oyster shell fgts	1
		Potentilla sp(p).	1
<b>Context 2200, Sample 94/RV</b>		Sambucus nigra	1
Avena sp(p).	1	sand	1
brick/tile	1	sandstone	1

**Context 3028, Sample 69/V**

Caucalis platycarpus	1
Vitis vinifera	1

**Context 3030, Sample 58/TF**

charcoal	1
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**Context 3041, Sample 57/TF**

Papaver argemone	1
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**Context 3049, Sample 59/TF**

charcoal	1
Ranunculus Section Ranunculus	1

**Context 3051, Sample 60/TF**

charcoal	1
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**Context 3075, Sample 64/TF**

Cerastium sp(p).	1
Potentilla sp(p).	1

**Context 3079, Sample 66/R**

brick/tile	1
charcoal	2
fish bone	1
mammal bone	1
stones	2

**Context 3079, Sample 66/TF**

Juncus bufonius	1
Papaver argemone	1
Sambucus nigra	1

**Context 3080, Sample 68/T**

bird bone	1
brick/tile	1
Carex sp(p).	1
cf. Stachys sp(p).	1
charcoal	2
coal	1
Coniferae (needles)	1
eggshell fgts	1
fish bone	1
fish scale	1
Juncus bufonius	1
mortar	1
mussel shell fgts	1
Potentilla cf. erecta	1
Salix sp(p). (b)	1
Sambucus nigra	1
shellfish fgts	1

**Context 3081, Sample 67/R**

brick/tile	3
charcoal	3
eggshell fgts	1
fish bone	1
Fumaria sp(p).	1
sand	1
stones	1

**Context 3081, Sample 67/T+**

Alisma sp(p).	1
brick/tile	2
Characeae	1
charcoal	1
coal	2
Daphnia (ephippia)	1
fish bone	1
fish scale	1
Fumaria sp(p).	1
Hypericum sp(p).	1
Juncus bufonius	1
mammal bone	1
mortar	1
Papaver argemone	1
Quercus sp(p). (b/bs)	1
Ranunculus Subgenus Batrachium	1
sand	2
shellfish fgts	1

**Context 3092, Sample 70/TF**

Alisma sp(p).	1
charcoal	1
Daphnia (ephippia)	1
Juncus sp(p).	1

**Context 4001, Sample 1/TF**

Juncus sp(p).	1
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**Context 4002, Sample 3/TF**

Carex sp(p).	1
charcoal	1
fly puparia	1
Juncus sp(p).	1

**Context 4006, Sample 7/R**

beetles	1
brick/tile	1
charcoal	1
eggshell fgts	1
fish scale	1
limestone	1
mammal bone	1

mortar	1	eggshell fgts	1
stones	1	fish bone	2
		fish scale	2
<b>Context 4007, Sample 13/TF</b>		Gramineae (ch)	1
charcoal	1	Juncus bufonius	1
Juncus bufonius	1	Juncus cf. gerardi	1
		Juncus inflexus/effusus/conglomeratus	1
<b>Context 4007, Sample 13/W</b>		Leguminosae	1
charcoal	1	marine mollusc shell fgts	1
mortar	1	mortar	1
Ranunculus Section Ranunculus	1	mussel shell fgts	1
stones	1	Papaver argemone	1
		Ranunculus Section Ranunculus	1
<b>Context 4008, Sample 9/TF</b>		Reseda lutea	1
charcoal	1	sand	1
wood fgts	2	Silene gallica	1
<b>Context 4021, Sample 51/T+</b>		<b>Context 4051, Sample 30/T</b>	
brick/tile	1	beetles	1
charcoal	2	brick/tile	3
coal	2	charcoal	1
eggshell fgts	1	fish bone	1
Ficus carica	1	Juncus sp(p).	1
fish scale	2	mammal bone	1
fly puparia (min)	2	marine mollusc shell fgts	1
glass	1	mortar	3
mammal bone	1	sand	2
metallic slag	1		
mortar	1	<b>Context 4071, Sample 36/T</b>	
plaster	1	Avena sp(p).	1
Rubus fruticosus agg.	1	brick/tile	2
Rubus idaeus	1	burnt mammal bone	1
Sambucus nigra	1	charcoal	1
sand	2	coal	1
		eggshell fgts	1
<b>Context 4026, Sample 11/T</b>		fish bone	1
brick/tile	1	fish scale	1
charcoal	1	limestone	1
coal	1	mortar	1
Juncus bufonius	1	Sambucus nigra	1
mortar	1	Stachys sp(p).	1
Papaver argemone	1		
plaster	1	<b>Context 5034, Sample 29/R</b>	
sand	2	brick/tile	1
Thalictrum flavum	1	Cerealia indet.	1
		charcoal	2
<b>Context 4037, Sample 23/T</b>		coal	1
Alisma sp(p).	1	fish bone	1
brick/tile	1	fish scale	1
Carex sp(p).	1	mammal bone	1
charcoal	2	mortar	1
coal	1	Sambucus nigra	1
Cyperaceae	1	stones	1

**Context 5034, Sample 29/TF**

Juncus bufonius 1

**Context 5036, Sample 32/R**

brick/tile 1

burnt mammal bone 1

charcoal 1

fish bone 1

Fumaria sp(p). 1

mammal bone 1

mortar 1

**Context 5036, Sample 32/T**

Avena sp(p). 1

brick/tile 2

Carex sp(p). 1

charcoal 2

Fe object(s) 1

Ficus carica 1

fish bone 1

fish scale 1

Fumaria sp(p). 1

Juncus bufonius 1

mammal bone 1

mortar 2

Papaver argemone 1

pottery 1

Sambucus nigra 1

sand 2

**Context 5037, Sample 34/T+**

brick/tile 2

Carex sp(p). 1

charcoal 1

coal 1

Daphnia (ephippia) 1

eggshell fgts 1

Euphrasia/Odontites sp(p). 1

fish bone 1

Galeopsis sp(p). 1

Juncus sp(p). 1

mammal bone 1

metallic slag 1

mortar 2

Papaver argemone 1

Ranunculus Section Ranunculus 1

Rubus fruticosus agg. 1

Sambucus nigra 1

sand 2

shell fgts 1

**Context 5040, Sample 41/R**

brick/tile 1

charcoal 1

coal 1

limestone 1

mammal bone 1

mortar 1

stones 2

**Context 5040, Sample 41/T**

Alisma sp(p). 1

brick/tile 1

Carex sp(p). 1

charcoal 1

coal 1

eggshell fgts 1

Fe object(s) 1

Ficus carica 1

fish bone 1

Juncus bufonius 2

mammal bone 1

metallic slag 1

mortar 1

Papaver argemone 1

Poa annua 1

sand 1

shellfish fgts 1

stones 1

*Appendix 3. Sample-by-sample lists for the invertebrate assemblages from Coffee Yard.*

Context: 1028 Sample: 12/T ReM: D  
Weight: 1.00 E: 4.00 F: 3.00

Aglenus brunneus	4	-	rt-ss
Cryptophagus scutellatus	2	-	rd-st
Aleocharinae sp.	1	-	u
Aphodius sp.	1	-	ob-rf
Anobium punctatum	1	-	l-sf
Niptus hololeucus	1	-	rd-ss
Tipnus unicolor	1	-	rt-ss
Ptinus fur	1	-	rd-sf
Sitophilus granarius	1	-	g-ss
Coleoptera sp.	1	-	u

Context: 1080 Sample: 38/T ReM: D  
Weight: 3.00 E: 5.00 F: 3.00

Aphodius sp.	1	-	ob-rf
Tipnus unicolor	1	-	rt-ss
Rhizophagus sp.	1	-	u
Atomaria sp.	1	-	rd

Context: 1082 Sample: 27/T ReM: D  
Weight: 1.00 E: 5.00 F: 5.00

Anobium punctatum	1	-	l-sf
Tipnus unicolor	1	-	rt-ss
Cryptophagus sp.	1	-	rd-sf
Atomaria sp.	1	-	rd
Coleoptera sp.	1	-	u
*Diptera sp. (puparium)	1	-	u

Context: 1115 Sample: 53/T ReM: D  
Weight: 3.00 E: 5.00 F: 5.00

?Cryptophagus sp.	1	-	rd-sf
Coleoptera sp. A	1	-	u
Coleoptera sp. B	1	-	u

Context: 1126 Sample: 45/T ReM: D  
Weight: 3.00 E: 5.00 F: 4.00

Tipnus unicolor	3	-	rt-ss
Oryzaephilus surinamensis	2	-	g-ss
Anobium punctatum	1	-	l-sf
Coleoptera sp.	1	-	u
*Coleoptera sp. (larva)	6	s	u

Context: 1178 Sample: 56/T ReM: D  
Weight: 3.00 E: 5.00 F: 1.00

Aphodius sp.	1	-	ob-rf
Coleoptera sp.	1	-	u
*Diptera sp. (adult)	1	-	u

Context: 1206 Sample: 10/T ReM: D  
Weight: 1.00 E: 4.00 F: 3.00

Tipnus unicolor	2	-	rt-ss
Histerinae sp.	1	-	rt
Sitophilus granarius	1	-	g-ss
Coleoptera sp.	1	-	u

Context: 1209 Sample: 63/T ReM: D  
Weight: 3.00 E: 5.00 F: 5.00

Tipnus unicolor	1	-	rt-ss
Ptinus fur	1	-	rd-sf
*Aranae sp.	1	-	u

Context: 1251 Sample: 75/T ReM: D  
Weight: 3.00 E: 4.00 F: 2.00

Heteroptera sp.	1	-	u
Ptinus fur	1	-	rd-sf
Sitophilus granarius	1	-	g-ss
*Aranae sp.	1	-	u

Context: 1251 Sample: 76/T ReM: D  
Weight: 3.00 E: 5.00 F: 1.00

Notes: Contaminant Euophryum

Oryzaephilus surinamensis	1	-	g-ss
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Context: 1266 Sample: 77/T ReM: D  
Weight: 1.00 E: 2.00 F: 1.00

Sitophilus granarius	1	-	g-ss
Coleoptera sp.	1	-	u

Context: 1267 Sample: 81/T ReM: D  
Weight: 3.00 E: 4.00 F: 3.00



Anobium punctatum	1	-	l-sf	Tipnus unicolor	7	-	rt-ss
Oryzaephilus surinamensis	1	-	g-ss	Trox scaber	1	-	rt-sf
Corticaria sp.	1	-	rt-sf	Anobium punctatum	1	-	l-sf
Sitophilus granarius	1	-	g-ss	Ptinus fur	1	-	rd-sf
Coleoptera sp.	1	-	u	Oryzaephilus surinamensis	1	-	g-ss
*Daphnia sp. (ephippium)	1	-	oa-w	Atomaria sp.	1	-	rd
				Lathridius minutus group	1	-	rd-st
				Sitophilus granarius	1	-	g-ss
				*Acarina sp.	12	-	u
				*Diptera sp. (puparium)	1	-	u
Context: 1269 Sample: 79/T ReM: D							
Weight: 3.00 E: 4.00 F: 4.00							
Anobium punctatum	2	-	l-sf	Context: 2066 Sample: 21/T ReM: D			
Aleocharinae sp.	1	-	u	Weight: 1.00 E: 3.00 F: 3.00			
Cryptophagus sp.	1	-	rd-sf				
Lathridius minutus group	1	-	rd-st	Philonthus sp.	1	-	u
Coleoptera sp. A	1	-	u	Niptus hololeucus	1	-	rd-ss
Coleoptera sp. B	1	-	u	Lathridius minutus group	1	-	rd-st
*Diptera sp. (adult)	6	-	u	Corticaria sp.	1	-	rt-sf
*Acarina sp.	2	-	u				
*Diptera sp. (puparium)	1	-	u				
				Context: 2079 Sample: 47/T ReM: D			
				Weight: 1.00 E: 4.00 F: 3.00			
Context: 1289 Sample: 83/T ReM: D				Sitophilus granarius	6	-	g-ss
Weight: 3.00 E: 5.00 F: 5.00				Tipnus unicolor	2	-	rt-ss
Atomaria sp.	1	-	rd	Oryzaephilus surinamensis	2	-	g-ss
*Diptera sp. (adult)	3	-	u	Cryptophagus sp.	1	-	rd-sf
Context: 1290 Sample: 85/T ReM: D				Context: 2080 Sample: 24/T ReM: D			
Weight: 0.40 E: 4.00 F: 5.00				Weight: 3.00 E: 4.00 F: 3.00			
Coleoptera sp.	1	-	u	Xylodromus concinnus	1	-	rt-st
				Staphylininae sp.	1	-	u
Context: 1315 Sample: 92/T ReM: D				?Aphodius sp.	1	-	ob-rf
Weight: 3.00 E: 5.00 F: 5.00				Anobium punctatum	1	-	l-sf
Coleoptera sp.	1	-	u	Tipnus unicolor	1	-	rt-ss
*Diptera sp. (puparium)	1	-	u	Curculionidae sp.	1	-	oa
				*Diptera sp. (adult)	1	-	u
Context: 1315 Sample: 93/T ReM: D				Context: 2090 Sample: 28/T ReM: D			
Weight: 3.00 E: 4.00 F: 5.00				Weight: 3.00 E: 5.00 F: 4.00			
Sitophilus granarius	1	-	g-ss	Tipnus unicolor	3	-	rt-ss
*Diptera sp. (puparium)	2	-	u	Coleoptera sp.	1	-	u
*Diptera sp. (adult)	1	-	u	*Acarina sp.	2	-	u
Context: 2039 Sample: 15/T ReM: D				Context: 2091 Sample: 31/T ReM: D			
Weight: 1.00 E: 4.00 F: 4.00				Weight: 3.00 E: 4.00 F: 4.00			
				Helophorus sp.	1	-	oa-w

Anotylus complanatus	1	-	rt-sf	Niptus hololeucus	1	-	rd-ss
Tipnus unicolor	1	-	rt-ss	Ptinus fur	1	-	rd-sf
Cryptophagus sp.	1	-	rd-sf	Blaps sp.	1	-	rt-ss
*Gastropoda sp.	6	s	u	Sitophilus granarius	1	-	g-ss
*Diptera sp. (puparium)	1	-	u	*Acarina sp.	3	-	u

Context: 2102 Sample: 33/T ReM: D  
Weight: 0.73 E: 4.00 F: 4.00

Tipnus unicolor	1	-	rt-ss
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Context: 2107 Sample: 44/T ReM: D  
Weight: 3.00 E: 5.00 F: 3.00

Tipnus unicolor	11	-	rt-ss
Sitophilus granarius	2	-	g-ss
Helophorus sp.	1	-	oa-w
Anobium punctatum	1	-	l-sf
Ptinus fur	1	-	rd-sf
Oryzaephilus surinamensis	1	-	g-ss
Coleoptera sp.	1	-	u
*Acarina sp.	3	-	u

Context: 2108 Sample: 39/T ReM: D  
Weight: 3.00 E: 4.00 F: 3.00

Tipnus unicolor	4	-	rt-ss
Anotylus complanatus	3	-	rt-sf
Lathridius minutus group	3	-	rd-st
Anobium punctatum	2	-	l-sf
?Omalium caesum or italicum	1	-	rt-sf
Ptilinus pectinicornis	1	-	l-sf
Ptinus fur	1	-	rd-sf
Oryzaephilus surinamensis	1	-	g-ss
Cryptophagus sp.	1	-	rd-sf
Sitophilus granarius	1	-	g-ss
*Daphnia sp. (ephippium)	5	-	oa-w
*Diptera sp. (puparium)	1	-	u
*Aranae sp.	1	-	u
*Acarina sp.	1	-	u

Context: 2110 Sample: 40/T ReM: D  
Weight: 0.86 E: 4.00 F: 4.00

Tipnus unicolor	6	-	rt-ss
Carabidae sp.	1	-	ob
?Omalium sp.	1	-	rt
Xylodromus concinnus	1	-	rt-st
Anobium punctatum	1	-	l-sf

Context: 2126 Sample: 54/T ReM: D  
Weight: 1.00 E: 4.00 F: 3.00

Oryzaephilus surinamensis	11	-	g-ss
Tipnus unicolor	10	-	rt-ss
Aglenus brunneus	6	-	rt-ss
Ptinus fur	4	-	rd-sf
Sitophilus granarius	4	-	g-ss
Histerinae sp.	1	-	rt
Gyrophypnus sp.	1	-	rt
Trox scaber	1	-	rt-sf
Aphodius sp.	1	-	ob-rf
Dermostidae sp.	1	-	rt-sf
Anobium punctatum	1	-	l-sf
Cryptophagus scutellatus	1	-	rd-st
Cryptophagus sp. A	1	-	rd-sf
Cryptophagus sp. B	1	-	rd-sf
Anthicus formicarius	1	-	rt-st
Apion sp.	1	-	oa-p
Curculionidae sp.	1	-	oa
*Acarina sp.	6	s	u

Context: 2127 Sample: 49/T ReM: D  
Weight: 3.00 E: 4.00 F: 3.00

Tipnus unicolor	5	-	rt-ss
Oryzaephilus surinamensis	2	-	g-ss
Sitophilus granarius	2	-	g-ss
Carabidae sp.	1	-	ob
Histerinae sp.	1	-	rt
Xylodromus concinnus	1	-	rt-st
Trox scaber	1	-	rt-sf
Aphodius sp.	1	-	ob-rf
Ptinus fur	1	-	rd-sf
Atomaria sp.	1	-	rd
Aglenus brunneus	1	-	rt-ss
Ceutorhynchus sp.	1	-	oa-p
Curculionidae sp.	1	-	oa
*Coleoptera sp. (larva)	3	-	u
*Hymenoptera Parasitica sp.	1	-	u
*Acarina sp.	1	-	u
*Gastropoda sp.	1	-	u

Context: 2127 Sample: 50/T ReM: D

Weight: 3.00 E: 5.00 F: 3.00

Tipnus unicolor	11	-	rt-ss
Sitophilus granarius	5	-	g-ss
Ptinus fur	3	-	rd-sf
Aglenus brunneus	3	-	rt-ss
Xylodromus concinnus	2	-	rt-st
Staphylininae sp.	2	-	u
Anobium punctatum	2	-	l-sf
Cryptophagus scutellatus	2	-	rd-st
Histerinae sp.	1	-	rt
Dermestes sp.	1	-	rt-sf
?Xestobium rufovillosum	1	-	l-st
Oryzaeophilus surinamensis	1	-	g-ss
Cryptophagus sp.	1	-	rd-sf
Lathridius minutus group	1	-	rd-st
Corticaria sp.	1	-	rt-sf
Curculionidae sp.	1	-	oa
*Acarina sp.	10	-	u

Context: 2127 Sample: 78/T ReM: D  
Weight: 3.00 E: 3.00 F: 1.00

Ptinus fur	1	-	rd-sf
Dienerella sp.	1	-	rd-sf

Context: 2128 Sample: 48/T ReM: D  
Weight: 3.00 E: 4.00 F: 3.00

Tipnus unicolor	5	-	rt-ss
Oryzaeophilus surinamensis	4	-	g-ss
Sitophilus granarius	3	-	g-ss
Xylodromus concinnus	2	-	rt-st
Ptinus fur	2	-	rd-sf
Trox scaber	1	-	rt-sf
Aphodius sp.	1	-	ob-rf
Aglenus brunneus	1	-	rt-ss
Tenebrio obscurus	1	-	rt-ss
*Gastropoda sp.	6	s	u
*Diptera sp. (puparium)	3	-	u
*Acarina sp.	3	-	u
*Hymenoptera Parasitica sp.	1	-	u

Context: 2143 Sample: 80/T ReM: D  
Weight: 1.00 E: 0.00 F: 0.00

*Diptera sp. (adult)	1	-	u
*Acarina sp.	1	-	u
*null		-	u

Context: 2174 Sample: 82/T ReM: D  
Weight: 1.00 E: 0.00 F: 0.00

Coleoptera sp.	1	-	u
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Context: 2179 Sample: 87/T ReM: D  
Weight: 3.00 E: 5.00 F: 5.00

Tipnus unicolor	2	-	rt-ss
Cryptophagus sp.	2	-	rd-sf
Helophorus sp.	1	-	oa-w
Anobium punctatum	1	-	l-sf
Lathridius minutus group	1	-	rd-st
*Daphnia sp. (ephippium)	1	-	oa-w
*Diptera sp. (adult)	1	-	u

Context: 2180 Sample: 88/T ReM: D  
Weight: 3.00 E: 4.00 F: 2.00

Xylodromus concinnus	1	-	rt-st
Tipnus unicolor	1	-	rt-ss
Oryzaeophilus surinamensis	1	-	g-ss
Sitophilus granarius	1	-	g-ss
?Curculionidae sp.	1	-	oa
Coleoptera sp.	1	-	u
*Daphnia sp. (ephippium)	2	-	oa-w
*Diptera sp. (adult)	1	-	u
*Diptera sp. (puparium)	1	-	u
*Acarina sp.	1	-	u

Context: 2206 Sample: 95/T ReM: D  
Weight: 3.00 E: 1.00 F: 1.00

Aleocharinae sp.	1	-	u
Curculionidae sp.	1	-	oa

Context: 3028 Sample: 69/T ReM: D  
Weight: 3.00 E: 4.00 F: 4.00

Aleocharinae sp.	1	-	u
Tipnus unicolor	1	-	rt-ss
Ptinus fur	1	-	rd-sf
Atomaria sp.	1	-	rd
Sitophilus granarius	1	-	g-ss
Coleoptera sp.	1	-	u
*Hymenoptera sp.	1	-	u
*Acarina sp.	1	-	u

Context: 3030 Sample: 58/T ReM: D  
Weight: 3.00 E: 4.00 F: 5.00

Ptinidae sp. 1 - rd  
Cryptophagus sp. 1 - rd-sf  
\*Diptera sp. (adult) 1 - u

Context: 3041 Sample: 57/T ReM: D  
Weight: 1.00 E: 4.00 F: 4.00

Anotylus complanatus 1 - rt-sf  
Tipnus unicolor 1 - rt-ss  
Ptinus fur 1 - rd-sf  
Coleoptera sp. 1 - u  
\*Aranae sp. 1 - u

Context: 3049 Sample: 59/T ReM: D  
Weight: 3.00 E: 3.00 F: 4.00

Carabidae sp. 1 - ob  
Colymbetinae sp. 1 - oa-w  
Xylodromus concinnus 1 - rt-st  
Aphodius sp. 1 - ob-rf  
Dermestes sp. 1 - rt-sf  
Ptinidae sp. 1 - rd  
Coleoptera sp. 1 - u

Context: 3051 Sample: 60/T ReM: D  
Weight: 3.00 E: 4.00 F: 4.00

Staphylininae sp. 1 - u  
Tipnus unicolor 1 - rt-ss  
Ptinus fur 1 - rd-sf  
Ceuthorhynchinae sp. 1 - oa-p  
Coleoptera sp. A 1 - u  
Coleoptera sp. B 1 - u  
Coleoptera sp. C 1 - u  
\*Acarina sp. 1 - u

Context: 3075 Sample: 64/T ReM: D  
Weight: 3.00 E: 3.00 F: 5.00

Coleoptera sp. 1 - u

Context: 3079 Sample: 66/T ReM: D  
Weight: 3.00 E: 4.00 F: 3.00

Oryzaeophilus surinamensis 7 - g-ss  
Sitophilus granarius 2 - g-ss  
Bembidion sp. 1 - oa  
Carabidae sp. 1 - ob  
Anobium punctatum 1 - l-sf  
Tipnus unicolor 1 - rt-ss  
Rhizophagus sp. 1 - u  
Aglenus brunneus 1 - rt-ss  
\*Daphnia sp. (ephippium) 2 - oa-w  
\*Acarina sp. 1 - u

Context: 3080 Sample: 68/T ReM: D  
Weight: 1.00 E: 4.00 F: 4.00

Sitophilus granarius 48 - g-ss  
Oryzaeophilus surinamensis 2 - g-ss  
Aphodius sp. 1 - ob-rf  
Tipnus unicolor 1 - rt-ss  
Mycetaea hirta 1 - rd-ss  
Tenebrio sp. 1 - rt-ss  
Apion sp. 1 - oa-p  
Coleoptera sp. 1 - u  
\*Daphnia sp. (ephippium) 1 - oa-w  
\*Diptera sp. (adult) 1 - u  
\*Diptera sp. (puparium) 1 - u  
\*Formicidae sp. 1 - u

Context: 3081 Sample: 65/T ReM: D  
Weight: 1.00 E: 0.00 F: 0.00

\*null - u

Context: 3081 Sample: 67/T ReM: D  
Weight: 3.00 E: 5.00 F: 4.00

Oryzaeophilus surinamensis 4 - g-ss  
Sitophilus granarius 4 - g-ss  
Aglenus brunneus 2 - rt-ss  
Helophorus sp. 1 - oa-w  
Xylodromus concinnus 1 - rt-st  
Anobium punctatum 1 - l-sf  
Ptinus fur 1 - rd-sf  
Cryptophagus sp. 1 - rd-sf  
\*Daphnia sp. (ephippium) 2 - oa-w  
\*Acarina sp. 1 - u

Context: 3092 Sample: 70/T ReM: D  
Weight: 1.00 E: 4.00 F: 4.00

Oryzaeophilus surinamensis	1	-	g-ss	Cyphon sp.	1	-	oa-d
Coleoptera sp.	1	-	u	?Dermestidae sp.	1	-	rt-sf
*Lophopus crystallinus	6	-	oa-w	Korynetes caeruleus	1	-	rt-sf
*Daphnia sp. (ephippium)	4	-	oa-w	Oryzaeophilus surinamensis	1	-	g-ss
*Acarina sp.	1	-	u	Cryptophagus ?scutellatus	1	-	rd-st

Context: 4001 Sample: 1/T ReM: D  
Weight: 1.00 E: 4.00 F: 4.00

Notes: All the Coffee Yard lists have been taken from the old archive report. Contaminant Euophryum

Tipnus unicolor	5	-	rt-ss
Aglenus brunneus	4	-	rt-ss
Lathridius minutus group	3	-	rd-st
Niptus hololeucus	2	-	rd-ss
Ptinus fur	2	-	rd-sf
Corticaria sp. A	2	-	rt-sf
Sitophilus granarius	2	-	g-ss
Anotylus tetracarinatus	1	-	rt
Xestobium rufovillosum	1	-	l-st
Anobium punctatum	1	-	l-sf
Oryzaeophilus surinamensis	1	-	g-ss
Cryptophagus sp.	1	-	rd-sf
Corticaria sp. B	1	-	rt-sf
Tenebrio obscurus	1	-	rt-ss
Coleoptera sp.	1	-	u
*Acarina sp.	6	-	u

Context: 4002 Sample: 3/T ReM: D  
Weight: 1.00 E: 4.00 F: 3.00

Aglenus brunneus	13	-	rt-ss
Tipnus unicolor	8	-	rt-ss
Anobium punctatum	5	-	l-sf
Ptinus fur	5	-	rd-sf
Niptus hololeucus	4	-	rd-ss
Dienerella sp.	3	-	rd-sf
Trechus obtusus or quadristriatus	2	-	oa
Cryptophagus sp. B	2	-	rd-sf
Mycetaea hirta	2	-	rd-ss
Corticaria sp. A	2	-	rt-sf
Notiophilus sp.	1	-	oa
Laemostenus sp.	1	-	ss
Carabidae sp. A	1	-	ob
Carabidae sp. B	1	-	ob
Cercyon sp.	1	-	u
Quedius sp.	1	-	u
Aleocharinae sp. A	1	-	u
Aleocharinae sp. B	1	-	u
Aphodius sp.	1	-	ob-rt

Cyphon sp.	1	-	oa-d
?Dermestidae sp.	1	-	rt-sf
Korynetes caeruleus	1	-	rt-sf
Oryzaeophilus surinamensis	1	-	g-ss
Cryptophagus ?scutellatus	1	-	rd-st
Cryptophagus sp. A	1	-	rd-sf
Anommatus duodecimstriatus	1	-	rt-st
Lathridius minutus group	1	-	rd-st
Enicmus sp.	1	-	rt-sf
Corticaria sp. B	1	-	rt-sf
Tenebrio obscurus	1	-	rt-ss
Sitophilus granarius	1	-	g-ss
*Acarina sp.	15	m	u
*Diptera sp. (adult)	6	s	u
*Diptera sp. (puparium)	6	s	u
*Coleoptera sp. (larva)	6	s	u

Context: 4006 Sample: 7/T ReM: D  
Weight: 3.00 E: 4.00 F: 3.00

Aglenus brunneus	10	-	rt-ss
Tipnus unicolor	4	-	rt-ss
Catops sp.	1	-	u
Micropeplus sp.	1	-	rt
Xylodromus concinnus	1	-	rt-st
?Aphodius sp.	1	-	ob-rt
Anobium punctatum	1	-	l-sf
Ptinus fur	1	-	rd-sf
Oryzaeophilus surinamensis	1	-	g-ss
Atomaria sp.	1	-	rd
Mycetaea hirta	1	-	rd-ss
Corticaria sp.	1	-	rt-sf
Tenebrio sp.	1	-	rt-ss
Coleoptera sp.	1	-	u
*Diptera sp. (puparium)	1	-	u
*Hymenoptera sp.	1	-	u
*Acarina sp.	1	-	u
*Gastropoda sp.	1	-	u

Context: 4007 Sample: 13/T ReM: D  
Weight: 3.00 E: 4.00 F: 3.00

Oryzaeophilus surinamensis	2	-	g-ss
Aglenus brunneus	2	-	rt-ss
Xylodromus concinnus	1	-	rt-st
Anotylus complanatus	1	-	rt-sf
Anobium punctatum	1	-	l-sf
Tipnus unicolor	1	-	rt-ss
Ptinus fur	1	-	rd-sf
Sitophilus granarius	1	-	g-ss
Coleoptera sp.	1	-	u

*Acarina sp.	3	-	u	Weight: 1.00	E: 4.00	F: 3.00	
				Sitophilus granarius	2	-	g-ss
				Tipnus unicolor	1	-	rt-ss
				Oryzaeophilus surinamensis	1	-	g-ss
				Mycetaea hirta	1	-	rd-ss
				*Acarina sp.	2	-	u
				*Hymenoptera Parasitica sp.	1	-	u
				Context: 4037 Sample: 23/T ReM: D			
				Weight: 3.00 E: 3.00 F: 2.00			
Tipnus unicolor	11	-	rt-ss	Sitophilus granarius	40	-	g-ss
Aglenus brunneus	11	-	rt-ss	Oryzaeophilus surinamensis	3	-	g-ss
Ptinus fur	10	-	rd-sf	Carabidae sp.	1	-	ob
Xylodromus concinnus	6	-	rt-st	Xantholinus linearis	1	-	rt-sf
Sitophilus granarius	6	-	g-ss	Aphodius sp.	1	-	ob-rf
Cryptophagus sp. A	3	-	rd-sf	Tipnus unicolor	1	-	rt-ss
Cryptophagus sp. B	3	-	rd-sf	Cryptophagus sp. A	1	-	rd-sf
Dermestes sp.	2	-	rt-sf	Cryptophagus sp. B	1	-	rd-sf
Lathridius minutus group	2	-	rd-st	Aglenus brunneus	1	-	rt-ss
Carabidae sp. A	1	-	ob	*Acarina sp.	4	-	u
Carabidae sp. B	1	-	ob				
?Catopinae sp.	1	-	u	Context: 4051 Sample: 30/T ReM: D			
Anotylus nitidulus	1	-	rt	Weight: 3.00 E: 4.00 F: 3.00			
Anotylus rugosus	1	-	rt	Tipnus unicolor	4	-	rt-ss
Anotylus tetracarinus	1	-	rt	Oryzaeophilus surinamensis	2	-	g-ss
Stenus sp.	1	-	u	Sitophilus granarius	2	-	g-ss
Aleocharinae sp. A	1	-	u	Cercyon sp.	1	-	u
Aleocharinae sp. B	1	-	u	Anobium punctatum	1	-	l-sf
Anobium punctatum	1	-	l-sf	Cryptophagus sp.	1	-	rd-sf
Niptus hololeucus	1	-	rd-ss	?Atomaria sp.	1	-	rd
Oryzaeophilus surinamensis	1	-	g-ss				
Atomaria sp.	1	-	rd	Context: 4021 Sample: 51/T ReM: D			
Ceutorhynchus sp.	1	-	oa-p	Weight: 3.00 E: 2.00 F: 3.00			
Curculionidae sp.	1	-	oa	?Quedius sp.	1	-	u
*Araneae sp.	1	-	u	Staphylininae sp.	1	-	u
*Acarina sp.	1	-	u	Aleocharinae sp.	1	-	u
				Anobium punctatum	1	-	l-sf
				Ptinus fur	1	-	rd-sf
				Ptinus sp.	1	-	rd-sf
				Corticaria sp. A	1	-	rt-sf
				Corticaria sp. B	1	-	rt-sf
				Coleoptera sp. A	1	-	u
				Coleoptera sp. B	1	-	u
				*Diptera sp. (puparium)	3	-	u
				*Diptera sp. (adult)	2	-	u
				*Acarina sp.	1	-	u

Context: 4026 Sample: 11/T ReM: D

Context: 4071 Sample: 35/T ReM: D  
Weight: 1.00 E: 5.00 F: 5.00

Xylodromus concinnus 1 - rt-st  
Oryzaephilus surinamensis 1 - g-ss

Context: 5034 Sample: 29/T ReM: D  
Weight: 3.00 E: 5.00 F: 5.00

Cercyon sp. 1 - u  
\*Daphnia sp. (ephippium) 1 - oa-w

Context: 5036 Sample: 32/T ReM: D  
Weight: 3.00 E: 5.00 F: 4.00

Anobium punctatum 1 - l-sf  
Ptinidae sp. 1 - rd  
Aglenus brunneus 1 - rt-ss  
\*Acarina sp. 4 - u

Context: 5037 Sample: 34/T ReM: D  
Weight: 3.00 E: 4.00 F: 3.00

Histerinae sp. 1 - rt  
Staphylininae sp. 1 - u  
Anobium punctatum 1 - l-sf  
Tipnus unicolor 1 - rt-ss  
Atomaria sp. 1 - rd  
Barynotus obscurus 1 - oa-p  
\*Daphnia sp. (ephippium) 2 - oa-w

Context: 5040 Sample: 41/T ReM: D  
Weight: 3.00 E: 4.00 F: 2.00

Xylodromus concinnus 1 - rt-st  
Aglenus brunneus 1 - rt-ss  
Curculionidae sp. 1 - oa

*Appendix 4. Main statistics for the assemblages of adult beetles and bugs from Coffee Yard.*

<b>Context</b>	<b>Sample</b>	<b>S</b>	<b>N</b>	<b>NOB</b>	<b>PNOB</b>	<b>NW</b>	<b>PNW</b>	<b>ND</b>	<b>PND</b>	<b>NP</b>	<b>PNP</b>	<b>NL</b>	<b>PNL</b>
1028	12	10	14	1	7	0	0	0	0	0	0	1	7
1080	38	4	4	1	25	0	0	0	0	0	0	0	0
1082	27	5	5	0	0	0	0	0	0	0	0	1	20
1115	53	3	3	0	0	0	0	0	0	0	0	0	0
1126	45	4	7	0	0	0	0	0	0	0	0	1	14
1178	56	2	2	1	50	0	0	0	0	0	0	0	0
1206	10	4	5	0	0	0	0	0	0	0	0	0	0
1209	63	2	2	0	0	0	0	0	0	0	0	0	0
1251	75	3	3	0	0	0	0	0	0	0	0	0	0
1251	76	1	1	0	0	0	0	0	0	0	0	0	0
1266	77	2	2	0	0	0	0	0	0	0	0	0	0
1267	81	5	5	0	0	0	0	0	0	0	0	1	20
1269	79	6	7	0	0	0	0	0	0	0	0	2	29
1289	83	1	1	0	0	0	0	0	0	0	0	0	0
1290	85	1	1	0	0	0	0	0	0	0	0	0	0
1315	92	1	1	0	0	0	0	0	0	0	0	0	0
1315	93	1	1	0	0	0	0	0	0	0	0	0	0
2039	15	8	14	0	0	0	0	0	0	0	0	1	7
2066	21	4	4	0	0	0	0	0	0	0	0	0	0
2079	47	4	11	0	0	0	0	0	0	0	0	0	0
2080	24	6	6	2	33	0	0	0	0	0	0	1	17
2090	28	2	4	0	0	0	0	0	0	0	0	0	0
2091	31	4	4	1	25	1	25	0	0	0	0	0	0
2102	33	1	1	0	0	0	0	0	0	0	0	0	0
2107	44	7	18	1	6	1	6	0	0	0	0	1	6
2108	39	10	18	0	0	0	0	0	0	0	0	3	17
2110	40	9	14	1	7	0	0	0	0	0	0	1	7
2126	54	17	47	3	6	0	0	0	0	1	2	1	2
2127	49	13	19	4	21	0	0	0	0	1	5	0	0
2127	50	16	38	1	3	0	0	0	0	0	0	3	8
2127	78	2	2	0	0	0	0	0	0	0	0	0	0
2128	48	9	20	1	5	0	0	0	0	0	0	0	0
2174	82	1	1	0	0	0	0	0	0	0	0	0	0
2179	87	5	7	1	14	1	14	0	0	0	0	1	14
2180	88	6	6	1	17	0	0	0	0	0	0	0	0
2206	95	2	2	1	50	0	0	0	0	0	0	0	0
3028	69	6	6	0	0	0	0	0	0	0	0	0	0
3030	58	2	2	0	0	0	0	0	0	0	0	0	0
3041	57	4	4	0	0	0	0	0	0	0	0	0	0
3049	59	7	7	3	43	1	14	0	0	0	0	0	0
3051	60	7	7	1	14	0	0	0	0	1	14	0	0
3075	64	1	1	0	0	0	0	0	0	0	0	0	0
3079	66	8	15	2	13	0	0	0	0	0	0	1	7
3080	68	8	56	2	4	0	0	0	0	1	2	0	0
3081	67	8	15	1	7	1	7	0	0	0	0	1	7



<b>Context</b>	<b>Sample</b>	<b>S</b>	<b>N</b>	<b>NOB</b>	<b>PNOB</b>	<b>NW</b>	<b>PNW</b>	<b>ND</b>	<b>PND</b>	<b>NP</b>	<b>PNP</b>	<b>NL</b>	<b>PNL</b>
3092	70	2	2	0	0	0	0	0	0	0	0	0	0
4001	1	15	28	0	0	0	0	0	0	0	0	2	7
4002	3	31	67	7	10	0	0	1	1	0	0	5	7
4006	7	14	26	1	4	0	0	0	0	0	0	1	4
4007	13	9	11	0	0	0	0	0	0	0	0	1	9
4008	9	24	69	4	6	0	0	0	0	1	1	1	1
4021	51	10	10	0	0	0	0	0	0	0	0	1	10
4026	11	4	5	0	0	0	0	0	0	0	0	0	0
4037	23	9	50	2	4	0	0	0	0	0	0	0	0
4051	30	7	12	0	0	0	0	0	0	0	0	1	8
4071	35	2	2	0	0	0	0	0	0	0	0	0	0
5034	29	1	1	0	0	0	0	0	0	0	0	0	0
5036	32	3	3	0	0	0	0	0	0	0	0	1	33
5037	34	6	6	1	17	0	0	0	0	1	17	1	17
5040	41	3	3	1	33	0	0	0	0	0	0	0	0
Whole	Site	83	708	45	6	5	1	1	0	6	1	34	5

Context	Sample	NRT	NRD	PNRD	NRF	PNRF	NSA	PNSA	NSF	PNSF	NST	PNST	NSS	PNSS	NG	PNG
1028	12	10	4	29	1	7	11	79	2	14	2	14	7	50	1	7
1080	38	3	1	25	1	25	1	25	0	0	0	0	1	25	0	0
1082	27	3	2	40	0	0	3	60	2	40	0	0	1	20	0	0
1115	53	1	1	33	0	0	1	33	1	33	0	0	0	0	0	0
1126	45	3	0	0	0	0	6	86	1	14	0	0	5	71	2	29
1178	56	1	0	0	1	50	0	0	0	0	0	0	0	0	0	0
1206	10	3	0	0	0	0	3	60	0	0	0	0	3	60	1	20
1209	63	2	1	50	0	0	2	100	1	50	0	0	1	50	0	0
1251	75	1	1	33	0	0	2	67	1	33	0	0	1	33	1	33
1251	76	0	0	0	0	0	1	100	0	0	0	0	1	100	1	100
1266	77	0	0	0	0	0	1	50	0	0	0	0	1	50	1	50
1267	81	1	0	0	0	0	4	80	2	40	0	0	2	40	2	40
1269	79	2	2	29	0	0	4	57	3	43	1	14	0	0	0	0
1289	83	1	1	100	0	0	0	0	0	0	0	0	0	0	0	0
1290	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1315	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1315	93	0	0	0	0	0	1	100	0	0	0	0	1	100	1	100
2039	15	11	3	21	0	0	13	93	3	21	1	7	9	64	2	14
2066	21	3	2	50	0	0	3	75	1	25	1	25	1	25	0	0
2079	47	3	1	9	0	0	11	100	1	9	0	0	10	91	8	73
2080	24	3	0	0	1	17	3	50	1	17	1	17	1	17	0	0
2090	28	3	0	0	0	0	3	75	0	0	0	0	3	75	0	0
2091	31	3	1	25	0	0	3	75	2	50	0	0	1	25	0	0
2102	33	1	0	0	0	0	1	100	0	0	0	0	1	100	0	0
2107	44	12	1	6	0	0	16	89	2	11	0	0	14	78	3	17
2108	39	13	5	28	0	0	18	100	9	50	3	17	6	33	2	11
2110	40	11	2	14	0	0	12	86	2	14	1	7	9	64	1	7
2126	54	29	7	15	1	2	42	89	9	19	2	4	31	66	15	32
2127	49	12	2	11	1	5	13	68	2	11	1	5	10	53	4	21
2127	50	26	7	18	0	0	34	89	8	21	6	16	20	53	6	16
2127	78	2	2	100	0	0	2	100	2	100	0	0	0	0	0	0
2128	48	13	2	10	1	5	19	95	3	15	2	10	14	70	7	35
2174	82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2179	87	5	3	43	0	0	6	86	3	43	1	14	2	29	0	0
2180	88	2	0	0	0	0	4	67	0	0	1	17	3	50	2	33
2206	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3028	69	3	2	33	0	0	3	50	1	17	0	0	2	33	1	17
3030	58	2	2	100	0	0	1	50	1	50	0	0	0	0	0	0
3041	57	3	1	25	0	0	3	75	2	50	0	0	1	25	0	0
3049	59	4	1	14	1	14	2	29	1	14	1	14	0	0	0	0
3051	60	2	1	14	0	0	2	29	1	14	0	0	1	14	0	0
3075	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3079	66	2	0	0	0	0	12	80	1	7	0	0	11	73	9	60
3080	68	4	1	2	1	2	53	95	0	0	0	0	53	95	50	89
3081	67	5	2	13	0	0	14	93	3	20	1	7	10	67	8	53
3092	70	0	0	0	0	0	1	50	0	0	0	0	1	50	1	50
4001	1	22	8	29	0	0	26	93	7	25	4	14	15	54	3	11
4002	3	49	19	28	1	1	56	84	22	33	3	4	31	46	2	3

Context	Sample	NRT	NRD	PNRD	NRF	PNRF	NSA	PNSA	NSF	PNSF	NST	PNST	NSS	PNSS	NG	PNG
4006	7	22	3	12	1	4	21	81	3	12	1	4	17	65	1	4
4007	13	6	1	9	0	0	10	91	3	27	1	9	6	55	3	27
4008	9	53	20	29	0	0	57	83	19	28	8	12	30	43	7	10
4021	51	4	2	20	0	0	5	50	5	50	0	0	0	0	0	0
4026	11	2	1	20	0	0	5	100	0	0	0	0	5	100	3	60
4037	23	6	2	4	1	2	48	96	3	6	0	0	45	90	43	86
4051	30	6	2	17	0	0	10	83	2	17	0	0	8	67	4	33
4071	35	1	0	0	0	0	2	100	0	0	1	50	1	50	1	50
5034	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5036	32	2	1	33	0	0	2	67	1	33	0	0	1	33	0	0
5037	34	3	1	17	0	0	2	33	1	17	0	0	1	17	0	0
5040	41	2	0	0	0	0	2	67	0	0	1	33	1	33	0	0
Whole	Site	386	121	17	12	2	580	82	137	19	44	6	399	56	196	28

*Appendix 5. Abbreviations for ecological codes and statistics used for interpretation of insect remains in text and tables. Lower case codes in parentheses are those assigned to taxa and used to calculate the group values (the codes in capitals). See Appendix 3 for codes assigned to taxa from Coffee Yard. Indivs - individuals (based on MNI); No - number.*

No taxa	S	Percentage of RT taxa	PSRT
Estimated number of indivs	N	No RT indivs	NRT
Index of diversity ( $\alpha$ )	alpha	Percentage of RT indivs	PNRT
Standard error of alpha	SE alpha	Index of diversity of RT component	alpha RT
No 'certain' outdoor taxa (oa)	SOA	Standard error	SEalphaRT
Percentage of 'certain' outdoor taxa	PSOA	No 'dry' decomposer taxa (rd)	SRD
No 'certain' outdoor indivs	NOA	Percentage of RD taxa	PSRD
Percentage of 'certain' outdoor indivs	PNOA	No RD indivs	NRD
No OA and probable outdoor taxa (oa + ob)	SOB	Percentage of RD indivs	PNRD
Percentage of OB taxa	PSOB	Index of diversity of the RD component	alphaRD
No OB indivs	NOB	Standard error	SEalphaRD
Percentage OB indivs	PNOB	No 'foul' decomposer taxa (rf)	SRF
Index of diversity of the OB component	alphaOB	Percentage of RF taxa	PSRF
Standard error	SEalphaOB	No RF indivs	NRF
No aquatic taxa (w)	SW	Percentage of RF indivs	PNRF
Percentage of aquatic taxa	PSW	Index of diversity of the RF component	alphaRF
No aquatic indivs	NW	Standard error	SEalphaRF
Percentage of W indivs	PNW	No synanthropic taxa (sf + st + ss)	SSA
Index of diversity of the W component	alphaW	Percentage of synanthropic taxa	PSSA
Standard error	SEalphaW	No synanthropic indivs	NSA
No damp ground/waterside taxa (d)	SD	Percentage of SA indivs	PNSA
Percentage D taxa	PSD	Index of diversity of SA component	ALPHASA
No damp D indivs	ND	Standard error	SEALPHASA
Percentage of D indivs	PND	No facultatively synanthropic taxa	SSF
Index of diversity of the D component	alphaD	Percentage of SF taxa	PSSF
Standard error	SEalphaD	No SF indivs	NSF
No strongly plant-associated taxa (p)	SP	Percentage of SF indivs	PNSF
Percentage of P taxa	PSP	Index of diversity of SF component	ALPHASF
No strongly P indivs	NP	Standard error	SEALPHASF
Percentage of P indivs	PNP	No typical synanthropic taxa	SST
Index of diversity of the P component	alphaP	Percentage of ST taxa	PSST
Standard error	SEalphaP	No ST indivs	NST
No heathland/moorland taxa (m)	SM	Percentage of ST indivs	PNST
Percentage of M taxa	PSM	Index of diversity of ST component	ALPHAST
No M indivs	NM	Standard error	SEALPHAST
Percentage of M indivs	PNM	No strongly synanthropic taxa	SSS
Index of diversity of the M component	alphaM	Percentage of SS taxa	PSSS
Standard error	SEalphaM	No SS indivs	NSS
No wood-associated taxa (l)	SL	Percentage of SS indivs	PNSS
Percentage of L taxa	PSL	Index of diversity of SS component	ALPHASS
No L indivs	NL	Standard error	SEALPHASS
Percentage of L indivs	PNL	No uncoded taxa (u)	SU
Index of diversity of the L component	alphaL	Percentage of uncoded indivs	PNU
Standard error	SEalphaL	No indivs of grain pests (g)	NG
No decomposer taxa (rt + rd + rf)	SRT	Percentage of indivs of grain pests	PNG