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**An assessment of the insect remains from Romano-
British contexts at Broughton Manor Farm, Milton
Keynes**

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by

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Summary

The insect remains discussed are from the late Iron Age/Romano British site at Broughton Manor Farm, Milton Keynes, Buckinghamshire. The samples recovered from a series of ditches which are thought to be part of a Romano-British field system.

The assemblages suggest an open landscape, used for pastoral purposes and vegetated by grasses and other herbaceous species associated with this type of low growing vegetation.

KEYWORDS: Palaeoentomology, Romano-British, field system, pastoral farming

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1. INTRODUCTION

Introduction

The insect remains and radiocarbon evidence discussed are from a series of features from the Iron Age/Romano British site at Broughton Manor Farm site. It was hoped that the insect remains from the site would provide information on a number levels: to establish the environment surrounding the features and to define the nature of land use and aquatic regime ultimately facilitating further landscape reconstruction and visualisation.

2. METHODS

The samples were processed at the University of Birmingham using the standard method of paraffin flotation outlined in Kenward *et al.* (1980). The insect remains were then sorted from the paraffin flot and the sclerites identified under a low power binocular microscope at x10 magnification. Where possible, the insect remains were identified by comparison with specimens in the Gorham and Girling collections housed at the University of Birmingham. The taxonomy used for the Coleoptera (beetles) follows that of Lucht (1987).

When discussing the faunas recovered, two considerations should be taken into account:

1) The identifications of the insects present are provisional. In addition, many of the taxa present could be identified down to species level during a full analysis, producing more

detailed information. As a result, the data presented here should be regarded as preliminary.

2) The various proportions of insects are subjective assessments. Minimum numbers of individuals can be obtained through a full sample analysis.

3. PRELIMINARY RESULTS

Sample 146

This sample produced a small, relatively well preserved assemblage which suggests the feature was surrounded by boggy, well vegetated terrain. The carabid, *Bembidion guttula*, is typical of this type of habitat and is found amongst lush grasses and carices at the edges of ponds, pools and ditches (Lindroth 1974). Further hygrophilous taxa include the hydraenid genus, *Helophorus* spp. (Hansen 1987).

The cryptophagid, *Atomaria* spp. and the lathridiidae, *Enicmus minutus*, both suggest accumulations of drier rotting material such as straw (Hall and Kenward 1990, Kenward and Hall 1997, Kenward and Hall 1995).

Sample 199

Material from this sample was well preserved but fragmentary. The assemblage however was one of the largest recovered from Broughton Manor Farm and provides a detailed picture of the environment at the site and possible land use.

The most significant evidence from this sample is provided by the

abundant presence of Scarabaeidae (dung beetles) which clearly indicates the presence of grazing animals nearby. Many of the Curculionidae or 'weevils', are found on grassland and in meadows and pasture. These include, *Apion* spp. and *Sitona* spp. *Sitona* spp. feeds upon vetches (*Vicia* spp.) and clover (*Trifolium* spp.), whilst *Apion* spp. are more commonly found on docks and sorrels (Koch 1992). Particularly abundant are *Apion* spp., which may indicate more disturbed ground at the periphery of the feature, perhaps a result of cattle poaching.

The Histeridae, *Onthophilus striatus*, and *Paralister puperascens*, and the Staphylinidae, *Oxytelus rugosus*, and *Tachinus rufipes*, are found in accumulations of foul, rotting organic material such as stable waste and compost heaps which may suggest a nearby dung heap.

Sample 257

This sample produced an extremely well preserved, relatively large and readily interpretable assemblage.

The Coleoptera indicate conditions similar to those in sample 199 and 258, with large tracts of grassland or damp meadows being used for the grazing of large herbivores.

Many of the species recovered from sample 199 were again present, such as large numbers of the Curculionidae, *Apion* spp. and *Sitona* spp. found on waste and disturbed ground and in grasslands. Large numbers of Scarabaeidae (dung beetles) persist and suggest large herbivores grazing nearby. Several species of Staphylinidae, found in some abundance, such as *Tachinus rufipes*, and *Oxytelus* spp. indicate large accumulations of rotting manure and

other organic material (Tottenham 1954).

The primary difference between the assemblage from this sample and that from sample 199 is that conditions appear to be generally wetter. Several specimens of the dytiscid, *Agabus* spp. were found. This taxon lives in deep pools of open, permanent water (Nilsson and Holmen 1995).

Sample 258

This sample produced the largest assemblage from this suite. The insect remains were exceptionally well preserved and are indicative of similar environments to those in sample 199.

Large numbers of Scarabaeidae, persist, as do species of grassland, meadow and pasture. The primary difference between these two samples is that conditions are much wetter than those suggested by the assemblage from sample 199. The Hydraenidae, *Octhebius* spp., and *Hydraena* spp., are associated with muddy, ephemeral pools and seasonal water bodies, whilst the large hydrophilid, *Hydrobius fuscipes*, is found at the margins of stagnant, standing water bodies with lush riparian vegetation (Hansen 1987).

Sample 261

A relatively small but well preserved and readily interpretable assemblage was recovered from this sample. The insect evidence continues to suggest a damp floodplain colonised by vegetation characteristic of disturbed ground and open grassland.

The Curculionidae, *Barypeithes* spp. and *Hypera* spp. are both found in grassland and meadow environments, whilst the *Apion* spp. are more commonly found on plants associated with greater disturbance (Koch 1992).

Aquatic taxa are absent and the limited hygrophilous species are associated with muddy, ephemeral water bodies. Small numbers of dung beetles and taxa associated with decaying organic material and dung, such as the staphylinid, *Platystethus nitens*, persist.

Sample 267

This assemblage is similar to those from sample 199, 257 and 258, though conditions appear to be drier than in the latter two samples.

The material was well preserved, with the recovery of a relatively large and readily interpretable assemblage.

There is less evidence in this sample for accumulations of foul, rotting organic material such as dung and stabling material.

Whilst indicators of grazing animals and grassland persist, this sample contains greater evidence of herbaceous species, other than grasses and grassland taxa, growing around the ditch. The chysomelid genus, *Galeruca* spp. are found on a variety of herbaceous species growing in marshy environments (Koch 1992).

Sample 270 and 280

The assemblages from both samples are limited and preclude further, meaningful interpretation.

4. CONCLUSIONS

The samples from Broughton Manor Farm have produced a suite of well-preserved and illuminating assemblages. The landscape surrounding these ditches was clearly vegetated by low growing grassland and used for pastoral farming.

Comparative evidence exists from a number of sites, such as Heathrow

Terminal 5 (Tetlow 2006), Wheatpieces, Tewskbury (Tetlow 2007); Appleford, Farmoor and Barton Court Farm (Robinson 1981), at the latter three sites palaeontological evidence indicates a prolonged period of grazing, with possible episodes of abandonment during the later Romano-British period (Robinson 1981). It is also possible that pastoral farming occurred at Love's Farm throughout much of the Romano-British period, further radiocarbon dating will clarify this issue further (Tetlow 2006).

Evidence of human habitation or deliberate dumping is absent, no taxa included in Kenwards' "House Fauna" were recovered (Hall and Kenward 1990, Kenward and Hall 1997, Kenward and Hall 1995), this suggest that the ditches acted as a natural 'pitfall trap' for the surrounding environment and the assemblages accumulated from autochthonous sources.

5. RECOMMENDATIONS FOR FURTHER ANALYSIS

Further, full analysis of six of these eight samples is strongly recommended (146, 199, 257, 258, 261 and 267) they have the potential to provide an extremely informative environmental data set for this site.

Further, full analysis of this material will cost £2,964 ex. VAT.

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