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**Technical report: plant and invertebrate  
macrofossils recovered from a single sample  
from Conesby Quarry Sidings, Conesby,  
North Lincolnshire (site code: CQS 2000)**

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**Technical report: plant and invertebrate macrofossils recovered from a single sample from Conesby Quarry Sidings, Conesby, North Lincolnshire (site code: CQS 2000)**

by

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**Summary**

*An archaeological investigation was carried out by Wetland Archaeology and Environments Research Centre (WAERC), The University of Hull, at Conesby Quarry Sidings, North Lincolnshire. A single sediment sample was recovered from a thin deposit of highly humified and silty peat.*

*Two subsamples (from the top and base of the layer) were submitted, by the excavator, for radiocarbon dating. These returned conventional radiocarbon ages of 11660 +/- 180 BP for the base of the layer, and 10950 +/- 100 BP for the top.*

*The material recovered from a 3 kg subsample was mostly quartz sand, with some granular organic matter, mainly small, rather strongly decayed wood fragments. Most of the rest of the material was undisaggregated well-humified silty peat. There was also a small and generally poorly preserved, but distinctive, insect fauna, typical of those from Late-Glacial tundra landscapes.*

**KEYWORDS:** CONESBY QUARRY SIDINGS; CONESBY; NORTH LINCOLNSHIRE; TECHNICAL REPORT; CONVENTIONAL RADIOCARBON AGE 11660 +/- 180 BP TO 10950 +/-100 BP; PLANT REMAINS; INVERTEBRATE REMAINS; INSECTS

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## Technical report: plant and invertebrate macrofossils recovered from a single sample from Conesby Quarry Sidings, Conesby, North Lincolnshire (site code: CQS 2000)

### Introduction

An archaeological investigation was carried out by Wetland Archaeology and Environments Research Centre (WAERC), The University of Hull, at Conesby Quarry Sidings, North Lincolnshire (centred on NGR SE 900 145).

A thin deposit of highly humified and silty peat (at 0.30-0.40 m) was revealed intercalated in the cover sands towards the northern end of the sidings area. There were few recognisable plant remains and pollen samples consist almost entirely of sedge (*Carex*), with rare pine (*Pinus*) and birch (*Betula*) grains. The deposit had previously been radiocarbon dated to 11280 $\pm$ 40 BP (Beta-154386). Conditions on site made sample recovery difficult and detailed stratigraphic recording was impossible.

A single sediment sample was recovered from the peat deposit ('GBA'/'BS' *sensu* Dobney *et al.* 1992) and submitted for analysis.

### Methods

The sediment sample was inspected in the laboratory and a description of its lithology recorded using a standard *pro forma*. A subsample was processed, following the procedures of Kenward *et al.* (1980; 1986).

The flot, washover and residue resulting from processing were examined for plant and invertebrate macrofossils.

### Results and Discussion

Two further subsamples (from the top and base of the layer) were submitted, by the

excavator, to Beta Analytic Inc. (Miami, Florida, USA) for radiocarbon dating. These corroborated the initial dating returning conventional radiocarbon ages of 11660  $\pm$  180 BP (Beta-179166) for the base of the layer, and 10950  $\pm$  100 BP (Beta-179165) for the top.

A single subsample (of 3 kg) of the peat was examined. The very small washover of about 100 cm<sup>3</sup> was mostly quartz sand, with about 15 cm<sup>3</sup> of granular organic matter, mainly small, rather strongly decayed wood fragments (to 5 mm), perhaps mainly originating in twigs. There were some buds of willow, *Salix*, perhaps indicating the likely identity of the wood fragments. Most of the rest of the material was undisaggregated well-humified silty peat. Other identifiable plant remains were limited to a few achenes of celery-leaved crowfoot (*Ranunculus sceleratus* L.), most likely to have been growing on mud at the edge of a pond or stream, and a single tentatively identified achene fragment of a meadow rue (*Thalictrum* sp.).

No charred plant material was recorded, in contrast to the traces of charred herbaceous detritus and wood charcoal observed during the evaluation (Hall and Kenward 2001)—most of the samples examined during that exercise yielded at least a few uncharred fragments of twig, sometimes tentatively identified as willow.

The flot was small and contained a few tens of beetle fragments. The remains were often highly decayed and fragmentary, a proportion of the *Arpedium* and *Olophrum* being exceptions. The low concentration of remains in the sediment meant that the 3 kg subsample gave too few for detailed analysis, although the recovered fauna was distinctive. The characteristic suite of omaliine staphylinids

*Boreaphilus henningsianus* Sahlberg, *Arpedium brachypterum* (Gravenhorst), *Olophrum fuscum* (Gravenhorst), *Acidota crenata* (Fabricius) and ?*Pycnoglypta lurida* (Gyllenhal) indicates very low temperatures, with a regime something like that in the far north of Finland and Russia today. There were very few other remains, mostly only identifiable to genus and generally highly fragmented. This very depauperate fauna is typical of those from Late-Glacial tundra landscapes (a good parallel seen in the 'frost crack' fauna from Church Moss, Davenham, Cheshire, Hughes *et al.* 2000).

A species list of the recovered plant and insect remains is presented as Table 1.

## Archive

All material is currently stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham), along with paper and electronic records pertaining to the work described here.

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Table 1. Plant and insect remains recorded from assessment and 'main phase' samples from Conesby Quarry Sidings, Conesby, North Lincolnshire. Taxonomic order and nomenclature follow Tutin et al. (1964-80) for plants. Note: quantification of insects was made difficult by the presence of highly fragmented remains.

### Vascular plants

<i>Salix</i> sp(p). (willow)	buds, twig fragments
<i>Ranunculus sceleratus</i> L. (celery-leaved crowfoot)	achenes
<i>R. flammula</i> L. (lesser spearwort)	achenes
<i>Thalictrum</i> sp(p). (meadow-rues)	achenes
<i>Carex</i> sp(p). (sedges)	nutlets

### Mosses

<i>Drepanocladus</i> sp(p).	leaves and/or shoot fragments
<i>Homalothecium</i> sp(p).	leaves and/or shoot fragments

### Insects

? <i>Trechus</i> sp.	1
<i>Agonum</i> sp.	1
<i>Olophrum fuscum</i> (Gravenhorst)	several
<i>Arpedium brachypterum</i> (Gravenhorst)	several
<i>Acidota crenata</i> (Fabricius)	1
? <i>Pycnoglypta lurida</i> (Gyllenhal)	1
<i>Boreaphilus henningsianus</i> Sahlberg	2
<i>Stenus</i> spp.	3
<i>Euaesthetus</i> sp.	1
<i>Aphodius</i> sp.	1
Staphylininae sp.	1
<i>Notaris aethiops</i> (Fabricius)	1
Ceuthorhynchinae sp.	1
Curculionidae sp.	1