

# **Evaluation of the plant remains from Crossrail, Limmo Peninsula Main and Auxiliary Shaft (XRW10)**

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Fourteen bulk geoarchaeological samples were taken during archaeological works at the site. All of the bulk samples were taken from sections associated with monolith samples.

The samples were processed by flotation, and the wet flots assessed to determine the presence and nature of any plant remains and other biological material present. Five of the samples were found to contain biological remains. These were samples 28, 32, 37, 38 and 40. Sample 28 was 20 L in volume; The remaining samples were 10 L each. The flot material of the samples was between 25 and 80 ml, quite small volumes given the sample sizes.

All of the plant material noted in the samples was preserved by waterlogging excepting on small fragment of a charred cereal grain in sample 28.

Waterlogged wood was noted in all five samples. Generally this wood was very degraded and in small fragments, though samples 37 and 38 contained a few larger pieces.

Waterlogged seeds were also noted in all the samples. The range of taxa in all of the assemblages was quite limited, with samples 37 and 38 showing the least diversity, while 28, 32, and 40 contained slightly more diverse assemblages. In the latter three, wetland type taxa were dominant, with crowfoots (*Ranunculus* subgen. *Batrachium*), and celery-leaved crowfoot (*Ranunculus sceleratus*) the most common. Woody plant types are indicated not only by the presence of wood fragments, but also by seeds of alder (*Alnus glutinosa*) and whole hazelnuts (*Corylus avellana*) in sample 32.

The charred grain fragment from sample 28, from context [78] can unfortunately not be identified to type or species, but it does indicate anthropogenic activity in the area during the period of deposition.

Beetle remains were noted in samples 37 and 38, both taken from peat deposit [80], and sample 40, taken from deposit [90]. In both cases very low numbers were noted. Other faunal remains were limited to low numbers of water flea, or Ehippia eggs in sample 38. Ehippia eggs indicate wet conditions at the time of deposition.

**Potential:**

There is a limited volume and range of plant remains in the samples. In conjunction with the geoarchaeological analysis, the results arrived at in this assessment have the potential to aid in the interpretation of the site, but further work on the plant remains is not likely to be needed to achieve this.

The volume of beetle remains noted is not likely to be of any interpretative value.

**Estimate for botanical analysis**

Writing of note for final report based on assessment results 0.5 days

**Total: 0.5 days**

**Table 1: Summary of environmental assessment data***(1 = occasional, 2 = moderate, 3 = abundant)*

Context	Sample	Process	ID	Abundance	Diversity	Comments
78	28	F	CHD GRAIN	1	1	1 fragment
		F	WLG MISC	2	1	wood stem
		F	WLG SEEDS	2	2	<i>Ranunculus sceleratus</i> , <i>Carex</i> spp. <i>Solanum nigrum</i> , Polygonum, <i>Ranunculus</i> Batrachium type
80	37	F	INV BEETLES	1	1	
		F	WLG SEEDS	2	1	<i>Stachys</i> sp., <i>Carex</i> sp., <i>Ranunculus</i> Batrachium type
		F	WLG WOOD	2	1	some large fragments
80	38	F	INV BEETLES	1	1	
		F	INV EPHIPPIA	1	1	
		F	WLG SEEDS	1	1	<i>Sambucus nigra</i> , <i>Urtica</i> <i>dioica</i> , <i>Ranunculus</i> Batrachium type
		F	WLG WOOD	3	1	some large fragments
82	32	F	WLG MISC	3	1	wood, <i>Corylus avellana</i> shell, stems/roots
		F	WLG SEEDS	2	2	<i>Ranunculus</i> Batrachium type, <i>Conium maculatum</i> , <i>Alnus glutinosa</i> , <i>Ranunculus</i> <i>sceleratus</i> , <i>Carex</i> spp.
90	40	F	INV BEETLES	1	1	
		F	WLG MISC	3	1	wood, stem
		F	WLG SEEDS	2	2	<i>Trifolium</i> sp. <i>Carex</i> sp. <i>Sparganium</i> , <i>Alisma</i> spp, other wet ground types