

TARRABY

"Roman grass cuttings"

The bulk of this material was preserved fragments of monocotyledonous stems (eg grasses, sedges etc.) and did indeed look like cut or mown vegetation.

5Kg of the material was washed down and subjected to paraffin flotations. This concentrated the fruits and seeds etc. present while the stem fragments remained in the residue. The following taxa were identified:

<u>Carex echinata</u> Murr. (Star Sedge)	30 fruits
<u>Carex panicea</u> L. (Carnation - Grass)	1 nutlet
<u>C. rostrata</u> Stokes/ <u>vesicaria</u> L. (Bottle Sedge/Bladder Sedge)	20 fruits
<u>Carex</u> sp. (Sedge)	5 nutlets
Gramineae (Grasses)	670 florets
<u>Lychnis flos-cuculi</u> L. (Ragged Robin)	30 seeds
<u>Potentilla anserina</u> L. (Silverweed)	1 achene
<u>P. erecta</u> (L.) Rausch (Common Tormentil)	13 achenes
<u>P. palustris</u> (L.) Scop. (Marsh Cinquefoil)	1 achene
<u>Ranunculus</u> sect. <u>Ranunculus</u> (Buttercup)	8 achenes
<u>R. sceleratus</u> L. (Celery-leaved Crowfoot)	3 achenes
<u>Rumex, crispus</u> Type (Dock)	1 nutlet
<u>Stellaria media</u> (L.) Vill. (Chickweed)	2 seeds
<u>Urtica dioica</u> L. (Nettle)	1 achene
<u>Pteridium aquilinum</u> L. (Bracken)	1 piece of frond

Unfortunately specific identification of the grass florets was impossible as the lemma was always damaged and the caryopsis immature. From the overall size and venation of the lemma however it was apparent that at least two species were present.

The list is dominated by plants of wet meadow and fen with a few species which would have grown near or in open water. In addition there are a few plants of waste ground or rough pasture such as nettles, chickweed, silverweed, tormentil and bracken.

It is likely that the deposit is vegetation cut from a low-lying meadow or similar, with areas of fen and open water and some drier places. As it comes from a ditch however it is possible that the open-water component and the drier, waste-land component may have come from the ditch and banks respectively.

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? Late- Glacial deposits from Field 7, Trench A.

Paraffined samples from the Ancient Monuments Lab. were examined and the macroscopic remains are shown on the attached sheet.

Sedge nutlets are the commonest remains. Although several species are involved, they all grow in wet places. Other plants grow in damp places, marshes and fens with some water flow.

The birch fruit indicated the presence of birch trees within a few miles of the fen. (Being winged, birch fruit can travel relatively far.) Although most of the birch pollen from the Cumbrian Late-Glacial falls within the range of the dwarf birch Betula nana L. macroscopic remains of tree birches have been found in zone II (Allerød) and even zone I deposits, and of course in the Post- Glacial.

An interesting record is that of Selaginella selaginoides which does not grow in the Carlisle area today, being mainly a plant of mountainous areas. It is an arctic- montane plant and is characteristic of late-glacial times, when it had a much wider range.

There are therefore indications that these deposits represent a Late- Glacial or early Post Glacial fen but only pollen analysis, giving a more regional view, especially of tree cover, could verify this.

TARRABY ? Late- Glacial deposits from Field 7, Trench A.

		110-120 cm	100-110 cm	90-100 cm
<u>Betula pendula</u> Roth./ <u>pubescens</u> Ehrh. (Tree birch)	achenes	1		
<u>Carex acuta</u> L./ <u>nigra</u> (L.) Reichard (Tufted/Common Sedge)	fruits	2	55	11
<u>Carex</u> cf <u>aquaticilis</u> Wahlenb.	nutlets		10	
<u>Carex rostrata</u> Stokes/ <u>vesicaria</u> L./ <u>pendula</u> Huds. (Bottle/ Bladder/Pendulous Sedge)	nutlets	23	392	90
<u>Carex</u> sp.	nutlets	6	9	10
<u>Lychnis flos-cuculi</u> L. (Ragged Robin)	seeds	4	28	5
<u>Menyanthes trifoliata</u> L. (Bog Bean)	seeds	4	8	29
<u>Potentilla palustris</u> (L.) Scop. (Marsh Cinquefoil)	achenes	-	8	8
<u>Ranunculus sceleratus</u> L. (Celery-leaved Crowfoot)	achenes	-	22	10
<u>Ranunculus</u> sect. <u>Ranunculus</u> (Buttercups)	achenes	-	-	1
<u>Rumex acetosella</u> L. (Sheep's Sorrel)	fruits	-	1	-
<u>Salix</u> sp. (Willow)	buds	+	-	-
<u>Selaginella selaginoides</u> (L.) Link (Lesser Clubmoss)	megaspores	4†	1	12

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Fighting Ditch. Date of fill unknown.

A paraffined sample contained the following:

<u>Alisma plantago-aquatica</u> L.(Water Plantain)	achenes	404
<u>Carex acuta</u> L./ <u>nigra</u> (L.) Reichard (Tufted/Common Sedge)	nutlets	2
<u>Carex rostrata</u> Stokes/ <u>vesicaria</u> L./ <u>pendula</u> Huds (Bottle/Bladder/Pendulous Sedge)	nutlets	7
<u>Chenopodium album</u> L.(Fat Hen)	seeds	1
<u>Cirsium vulgare</u> (Savi) Ten. (Spear Thistle)	achenes	1
<u>Isolepis setacea</u> (L.) R.Br. (Bristle Scirpus)	nutlets	9
<u>Menyanthes trifoliata</u> L. (Bog Bean)	seeds	100
<u>Montia fontana</u> L. (Blinks)		
ssp. <u>chondrosperma</u> (Fenzl.) S.M.Walters	seeds	1
ssp. <u>intermedia</u> (Beeby) S.M.Walters	seeds	2
ssp. <u>variabilis</u> S.M.Walters	seeds	30
<u>Potamogeton natans</u> L. (Broad-leaved Pondweed)	fruits	33
<u>Ranunculus</u> subgenus <u>Batrachium</u> (DC) A.Gray (Water Crowfoot)	achenes	8
<u>Ranunculus flammula</u> L.(Lesser Spearwort)	achenes	4
<u>Ranunculus sceleratus</u> (Celery- leaved Crowfoot)	achenes	2
<u>Stellaria alsine</u> Grimm. (Bog Stichwort)	seeds	6
<u>Viola</u> cf. <u>riviniana</u> Rchb. (Common Violet)	seeds	1

The pondweed is a true aquatic, with submerged and floating leaves, while the waterplantain, bog bean and crowfoots could have been growing in the water or on the muddy margins.

Most other species are of wet or damp places. The Montias indicate some acid soils nearby. Subspecies variabilis and intermedia grow in water trickles or very wet places on acid soil or rock while ssp. chondrosperma grows on light acid soil with a high water table.

There is also a small component of weeds of wasteland or waysides while the violet grows on woods, pasture or heathe but not on very wet soils.

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Ditch 766 (AML 762084) Fill Roman.

The sample was subjected to paraffin flotations and contained the following:

<u>Carex</u> sp. (Sedge)	nutlets	2
<u>Chenopodium</u> <u>rubrum</u> L./ <u>botryoides</u> Sm./ <u>glaucum</u> L.	seeds	30
<u>Juncus</u> <u>effusus</u> L./ <u>conglomeratus</u> L. (Soft Rush)	seeds	2
<u>Juncus</u> <u>articulatus</u> L./ <u>acutiflorus</u> Ehrh. ex. Hoffm. (Jointed/Sharp- flowered Rush)	seeds	1
<u>Lemna</u> <u>trisulca</u> L. (Ivy Duckweed)	seeds	18
<u>Menyanthes</u> <u>trifoliata</u> L. (Bog Bean)	seeds	5
<u>Potamogeton</u> <u>friesii</u> Rupr. (Flat-stalked Pondweed)	fruits	5
<u>Urtica</u> <u>dioica</u> L. (Nettle)	achenes	142
Gramineae (Grasses)	caryopses	5
<u>Chara</u>	oosporangia 16 (uncalcified)	

Open, still water is indicated by the duckweed and a muddy substrate by the pondweed. Chara, the large alga, also usually grows in still water and can often tolerate fairly anaerobic and polluted conditions. Other species would have grown on the margins of the ditch.

A large proportion of the seeds are of nettles and goosefoot and indicate nutrient- rich waste ground nearby.

Alison M Donaldson

Biological Laboratory

Department of Archaeology

University of Durham.