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Reports from the *Fishlab*, Centre for Human Palaeoecology, University of York

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The fish bone from The Former St Cuthbert's School, Michaelgate, Lincoln

by

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Summary

A small assemblage (42 identified specimens) was recorded from the site. Taxa recovered included eel, herring, pike and cod family species.

KEYWORDS: LINCOLN; FISH BONES; ZOOARCHAEOLOGY

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The fish bone from the former St Cuthbert's School, Lincoln

Introduction

A small fish bone assemblage was recovered from the former St. Cuthbert's School site (site code LSCN03), taxa included eel, herring, pike and cod family species. The site spans from the Roman to Post-Mediaeval period, but, no fish bones were recovered from phased deposits.

Methods

Recording followed the York protocol as outlined by Harland *et al* 2003. All specimens are counted and weighed and are classified as either 'diagnostic' or 'non-diagnostic' elements. The diagnostic elements are identified to species level where possible and are further divided into three groups; quantification codes 1, 2 and 4. For a suite of 18 QC1 elements, criteria including estimation of fish size, element completeness, bone modification (such as butchery) and metric data are recorded. Generally, unless modified in some way vertebrae (QC2 elements) are not recorded in detail beyond taxonomic identification. However, due to the small size of this assemblage estimated fish size was recorded for vertebrae where possible. Special elements such as dermal denticles (quantification code 4) are recorded in a similar level of detail as the QC1 elements. Under the York protocol all other (QC0) elements are usually recorded as unidentified. A list of Latin and common names for all taxa in the assemblage is included in appendix 1.

The complete archive has been submitted to Lindsey Archaeological Services with this report, as a Microsoft Access database file and a series of text files which duplicate its content. A copy of the archive will also be kept on file at the University of York.

Analysis

Due to the small size of the Former St. Cuthbert's School assemblage, only a cursory note can be made on the preservation of the material. Burnt specimens were recorded from context 1668 only. Insufficient QC1 elements were recorded to allow comment on element completeness and surface texture. All data discussed above is presented in table 1. A list of context descriptions and recovery information is provided in appendix 2.

Excavation at the site has revealed Roman (2nd century AD) to Post-Mediaeval activity. Unfortunately, the fish bone does not come from phased contexts. A total of 99 specimens, of which 42 were identified, were recovered from twenty-four contexts analysed (table 2). Although the assemblage is small, marine (ray family, herring, cod, haddock and ling), estuarine (eel) and freshwater taxa (pike) are represented (table 3). The majority of elements recorded were vertebrae, with the exception of a pike articular (context 1411) and dentary (1755); a cod ceratohyal (1684), cleithrum (1957) and premaxilla (1903); a cod family quadrate (1885) and a ray family dermal denticle (17930). Table 4 shows the estimated size of fish recovered from the site.

References

Harland, J. F., J. H. Barrett, J. Carrott, K. Dobney, and D. Jaques. 2003. The York System: An integrated zooarchaeological database for research and teaching. *Internet Archaeology* 13:http://intarch.ac.uk/journal/issue13/harland_index.html

Table 1. Bone preservation by context (only recordable for certain contexts)

	1668	1885	1684	1957	1755	1903	1411	total
Burning (all specimens)								
Burned black	3							
Element completeness (QC1 elements only)								
21-40%			1	1		1		3
41-60%		1			1			2
61-80%							1	1
Surface texture (QC1 elements only)*								
good		1		1		1	1	4
fair					1			1
poor			1					1

*Assessment of surface texture based on the following criteria (Harland *et al* 2003) :
 good – lacks fresh appearance but solid; very localized flaky or powdery patches
 fair - surface solid in places, but flaky or powdery on upto 49% of specimen
 poor- surface flaky or powdery on over 50% of specimen

Table 2. Number of identified specimens

context	count			weight		
	unidentified	diagnostic	total	unidentified	diagnostic	total
1227	1	1	2	1.26	3.36	4.62
1235		2	2		2.23	2.23
1237		1	1		2.19	2.19
1276	1	1	2	1.32	6.23	7.55
1286		1	1		0.56	0.56
1411		2	2		0.74	0.74
1665	1	1	2	0.50	4.42	4.92
1668	7	1	8	0.16	4.81	4.97
1684	3	2	5	1.92	1.93	3.85
1685	11	8	19	2.40	0.26	2.66
1720	1		1	0.86		0.86
1723	8	4	12	3.21	28.44	31.65
1736	1		1	0.63		0.63
1751	1		1	0.10		0.10
1755	3	1	4	0.61	0.44	1.05
1790	1		1	0.05		0.05
1793		1	1		0.92	0.92
1832		1	1		1.66	1.66
1834		1	1		0.98	0.98
1885	1	1	2	0.69	0.26	0.95
1900	6	4	10	1.67	0.03	1.70
1903	7	5	12	0.39	0.32	0.71
1941	1	3	4	0.86	7.87	8.73
1957	3	1	4	0.75	1.16	1.90
total	57	42	99	17.36	68.81	86.15

Table 3. Element representation

species	element	1723	1227	1276	1834	1668	1885	1665	1684	1235	1900	1685	1286	1957	1941	1755	1903	1411	1832	1237	1793	total	
ray family	dermal denticle																					1	1
eel	caudal vertebra										1												1
	vertebra										3												3
Atlantic herring	abdominal vertebra												2										2
	caudal vertebra												3				3						6
herring family	caudal vertebra																	1					1
pike	articular																			1			1
	dentary															1							1
	abdominal vertebra											1											1
cod	quadrate						1																1
haddock	abdominal vertebra 3												1						1				2
	caudal vertebra 2											1	1										2
ling	abdominal vertebra 2	3																					3
	abdominal vertebra						1																1

species	element	1723	1227	1276	1834	1668	1885	1665	1684	1235	1900	1685	1286	1957	1941	1755	1903	1411	1832	1237	1793	total		
cod family	ceratohyal								1														1	
	cleithrum													1										1
	premaxilla																1							1
	abdominal vertebra 1		1		1			1							1									4
	abdominal vertebra 2			1											2					1				4
	abdominal vertebra 3								1															1
	caudal vertebra 1										1													1
	caudal vertebra	1									1											1		3

Table 4. Estimated fish total length (based on comparison with reference specimens of known length)

size	taxon	1227	1235	1237	1276	1286	1411	1665	1668	1684	1685	1723	1755	1793	1832	1834	1903	1941	1957
151-300mm	pike										1								
301-500mm	pike						1							1					
501-800mm	cod		1							1								1	
	haddock					1													
801-1000mm	cod		1	1						1						1	1		
	ray family													1					1
>1000mm	cod	1				1		1											
	ling								1			3							3

Appendix 1. Common and latin names of taxa mentioned in the text

Common name	Latin name
ray family	Rajidae
eel	<i>Anguilla anguilla</i>
Atlantic herring	<i>Clupea harengus</i>
pike	<i>Esox lucius</i>
cod	<i>Gadus morhua</i>
haddock	<i>Melanogrammus aeglefinus</i>
ling	<i>Molva molva</i>
cod family	Gadidae

Appendix 2. List of contexts with fish bones

context	description	recovery
1227	Fill of wall foundation cut	hand collection?
1235	Silt build up above floor	hand collection?
1237	Build up layer	hand collection?
1276	Build up layer	hand collection?
1286	Foundation backfill	hand collection?
1411	Fill of robber trench	hand collection?
1665	Accumulation/Topsoil	hand collection?
1668	Floor	>1mm
1684	Floor	hand collection?
1685	Accumulation/Topsoil	>1mm
1720	Floor	hand collection?
1723	Topsoil	hand collection?
1736	Accumulation/Topsoil	hand collection?
1751	Accumulation/Topsoil	hand collection?
1755	Fill of 1741 (robber trench)	hand collection?
1790	Fill of 1984 (pit)	hand collection?
1793	Fill of 1789 (channel)	hand collection?
1832	levelling	hand collection?
1834	levelling	hand collection?
1885	posthole	hand collection?
1900	levelling/repair	>1mm
1903	levelling/repair	>1mm
1941	fill of 1947 (ditch)	hand collection?
1957	accumulation/topsoil	hand collection?

NB >1mm recovery indicates the fish bone came from the heavy 'residue' fraction of flotation samples (processed by Archaeological Services WYAS). No specific recovery method was indicated on the bag for the rest of the contexts, hand collection has been assumed.