

## THE FISH BONES

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Fish were recovered in small quantities from a large number of contexts which had been sieved. Although dominated by flatfish a variety of species was present, often represented by very few bones. The species and families identified are, eel (*Anguilla anguilla*), herring (*Clupea harengus*), shad (*Alosa* sp.), Salmonidae, cf. pike (*Esox lucius*), whiting (*Merlangius merlangus*), poor cod (*Trisopterus minutus*), saithe (*Pollachius virens*), Gadidae, cf. red mullet (*Mullus surmuletus*), thin-lipped grey mullet (*Liza ramada*), Mugilidae, mackerel (*Scomber scombrus*), plaice (*Pleuronectes platessa*), flounder (*Platichthys flesus*), plaice/flounder (*Pleuronectes platessa/Platichthys flesus*), cf. dab (*Limanda limanda*), cf. halibut (*Hippoglossus hippoglossus*) and flatfish indet.

The fish were recovered from contexts dating from the late Iron Age to the late Roman/Saxon transition from a number of different areas on the site. The fish identified from each phase are summarised below from archive tables in which the fish identified in each context are shown.

Most of the fish were recovered from a variety of contexts including pits, ditches and well fills. Some of the bone was burnt within the same deposits as unburnt bone.

	LIA-Roman Trans	Early Roman	Mid Roman	Late Roman	Total
Eel	1	18	2	5	26
Herring	-	1	1	3	5
Shad	7	1	-	-	8
Salmonid	-	1	2	-	3
cf. Pike	-	-	-	1	1
Whiting	-	-	1	-	1
Poor cod	-	-	1	-	1
Saithe	-	1	-	-	1
Small Gadid	3	25	-	-	28
cf. Red Mullet	-	-	-	1	1
Thin-lipped Grey Mullet	-	-	-	1	1
Mugilidae	1	-	-	-	1
Mackerel	-	-	1	-	1
Plaice	1	-	-	4	5
Flounder	28	1	5	-	34
Plaice/Flounder	1	11	3	15	30
Dab	-	2	-	5	7
Halibut	-	-	-	1	1
Flatfish	30	45	19	18	112
<b>Total</b>	72	106	35	54	267

Table 1. Summary of identified fish bones

Of the 28 flounder bones in Late Iron Age/Roman transition contexts 23 are likely to be from a single fish of approximately 300mms total length.

The summary table shows only the identified material and this small assemblage suggests continuity in the species exploited from the late Iron Age to the late Roman period, with a dependence on inshore marine fishing and exploitation of migratory species in freshwater.

The flatfishes are most numerous, most specifically plaice and flounder. These would have been part of an inshore coastline/estuarine fishery along the Blackwater Estuary where they would have been caught on lines or in shoreline traps. The 2 burnt caudal vertebrae attributed to halibut were found in context 5188 with other burnt fish bone and were from a small immature fish still in its inshore phase.

As well as freshwater species such as pike, migratory species were present which are found in freshwater either seasonally or at a particular phase of their lifecycle. These could have been caught in local rivers and comprise eel, shad, salmonid and thin-lipped grey mullet, all of which can be found in freshwater periodically.

There is no evidence for deep water fishing in the North Sea (the saithe dentary is from a small immature fish of around 240mm total length), the absence of which characterises Roman deposits in Britain and contrasts with the growing importance of the large gadid species during the Late Saxon and medieval periods.

Evidence for Roman influence in the fish bone collection, as suggested by species also common in the Mediterranean, is represented by a mackerel vertebra from fill 5939 (mid Roman pit 5940) and a ?red mullet vertebra from fill 10897 (late Roman pit 10953). Both of these can be found in the southern North Sea where the red mullet is a summer visitor (Wheeler 1978, 268). However, there is no evidence for high status as suggested by some of the fish species and other exotic plant remains identified at Great Holts Farm, Essex (Locker 2004 and Murphy, Albarella, Germany and Locker 2000).

## References

Germany, M.	2003	<i>Excavations at Great Holts Farm, Boreham, Essex, 1992-94</i> , E. Anglian Archaeol. <b>105</b>
Locker, A.	2004	'Fish bone' in, Germany, M., <i>Excavations at Great Holts Farm, Boreham, Essex, 1992-94</i> , E. Anglian Archaeol. <b>105</b> , 200
Murphy, P., Albarella, U., Germany, M. and Locker, A.	2000	'Production, Imports and Status: Biological Remains from a Late Roman Farm at Great Holts Farm, Boreham, Essex, UK, <i>Environmental Archaeol.</i> <b>5</b> , 35-48
Wheeler A.	1978	<i>Key to the Fishes of Northern Europe</i> . Warne.

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Archive Table 1: Late Iron Age/Roman Transition

Context	Area	EEL	SHA	SGD	MUG	PLA	FLO	P/F	FLA	TL
9082	D	-	-	-	-	-	-	-	1	1
9610	D	-	-	-	-	-	1	-	-	1
7298	G	-	-	-	-	-	-	-	1	1
6712	H	-	-	-	-	-	23*	-	5	28
6750	H	-	-	-	-	-	3	-	-	3
16136	H	-	-	-	-	-	-	-	9	9
4506	K	-	-	-	-	-	1	-	-	1
14061	K	-	-	-	-	-	-	-	2	2
14062	K	-	5	-	-	1	-	-	-	6
20039	L	-	-	-	-	-	-	1	-	1
11329	N	1	-	-	-	-	-	-	5	6
11492	N	-	-	-	-	-	-	-	1	1
23090	N	-	-	-	-	-	-	-	2	2
17060	Q	-	-	-	1	-	-	-	2	3
17070	Q	-	-	1	-	-	-	-	-	1
17258	Q	-	2	-	-	-	-	-	2	4
17282	Q	-	-	2	-	-	-	-	-	2
<b>Total</b>		<b>1</b>	<b>7</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>28</b>	<b>1</b>	<b>30</b>	<b>72</b>

\* = same fish

Archive Table 2: Early Roman

Context	Area	EEL	HER	SHA	SAL	SAI	SGD	FLO	P/F	DAB	FLA	TL
9064	D	-	-	-	-	1	24	-	-	-	4	29
9312	D	1	-	-	-	-	-	-	-	-	-	1
5393	E	1-	-	-	1	-	-	-	-	-	17	28
10054	E	-	-	-	-	-	-	-	3	-	-	3
7258	G	1	-	-	-	-	-	-	-	-	1	2
3468	H	-	-	1	-	-	-	-	-	-	-	1
3639	H	-	-	-	-	-	-	-	1	-	1	2
6339	H	-	-	-	-	-	-	-	-	-	1	1
6342	H	-	-	-	-	-	-	-	-	-	1	1
6538	H	-	-	-	-	-	-	-	-	-	1	1
13778	I	-	-	-	-	-	-	-	-	-	3	3
13825	I	1	-	-	-	-	-	-	-	-	4	5
18200	I	-	-	-	-	-	-	-	1	-	-	1
18216	I	1	-	-	-	-	1	-	1	-	-	3
18229	I	2	-	-	-	-	-	-	-	-	1	3
18237	I	-	-	-	-	-	-	-	1	-	-	1
18240	I	1	-	-	-	-	-	-	-	-	-	1
13387	J	-	-	-	-	-	-	-	-	2	2	4
13389	J	-	-	-	-	-	-	-	-	-	1	1
4167	K	-	-	-	-	-	-	-	2	-	5	7
4497	K	-	-	-	-	-	-	-	-	-	2	2
4682	K	-	-	-	-	-	-	1	-	-	-	1
4823	K	1	1	-	-	-	-	-	-	-	-	2
11281	N	-	-	-	-	-	-	-	-	-	1	1
8991	P	-	-	-	-	-	-	-	2	-	-	2
<b>Total</b>		<b>18</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>25</b>	<b>1</b>	<b>11</b>	<b>2</b>	<b>45</b>	<b>106</b>

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Archive Table 3: Mid Roman

Context	Area	EEL	PCD	HER	SAL	WHI	MAC	FLO	P/F	FLA	TL
9895	D	1	-	-	-	-	-	-	-	-	1
8214	E	-	-	-	-	1	-	-	-	-	1
6152	H	1	-	-	2	-	-	-	-	1	4
16082	H	-	-	-	-	-	-	1	-	-	1
5348	J	-	-	1	-	-	-	-	-	6	7
5392	J	-	-	-	-	-	-	1	-	-	1
5939	J	-	-	-	-	-	1	-	-	7	8
22115	J	-	-	-	-	-	-	-	1	-	1
4392	K	-	1	-	-	-	-	-	-	1	2
4692	K	-	-	-	-	-	-	1	-	-	1
4753	K	-	-	-	-	-	-	-	-	2	2
4806	K	-	-	-	-	-	-	2	-	-	2
14089	K	-	-	-	-	-	-	-	-	1	1
14090	K	-	-	-	-	-	-	-	1	-	1
14610	L	-	-	-	-	-	-	-	1	-	1
15272	M	-	-	-	-	-	-	-	-	1	1
<b>Total</b>		<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>3</b>	<b>19</b>	<b>35</b>

Archive Table 4: Late Roman

Context	Area	EEL	HER	PIK	RML	TLM	PLA	P/F	DAB	HAL	FLA	TL
8141	E	-	-	-	-	-	-	-	-	-	1	1
10396	F	2	-	-	-	-	-	-	-	-	-	2
5188	J	-	1	-	-	-	-	2	-	1	2	6
5207	J	-	-	-	-	-	-	-	-	-	2	2
5214	J	-	1	-	-	-	4	9	2	-	-	16
5348	J	-	1	-	-	-	-	-	-	-	6	7
5374	J	-	-	-	-	-	-	-	-	-	4	4
5472	J	-	-	-	-	-	-	1	-	-	-	1
4129	K	-	-	-	-	-	-	-	-	-	1	1
4150	K	-	-	-	-	-	-	2	-	-	-	2
14558	L	-	-	1	-	-	-	-	-	-	-	1
15869	M	-	-	-	-	-	-	1	-	-	-	1
10891	N	1	-	-	-	1	-	-	3	-	-	5
10897	N	2	-	-	1	-	-	-	-	-	2	5
<b>Total</b>		<b>5</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>15</b>	<b>5</b>	<b>1</b>	<b>18</b>	<b>54</b>

Key: EEL= Eel  
SAL= Salmonid  
PCD= Poor cod

Gadid

RML= Red Mullet  
MUG= Mugilidae  
FLO= Flounder  
HAL= Halibut

HER= Herring  
PIK= Pike  
SAI= Saithe

TLM= Thin-lipped Grey Mullet  
MAC= Mackerel  
P/F= Plaice/flounder  
FLA= Flatfish

SHA= Shad  
WHI= Whiting  
SGD= Small

PLA= Plaice  
DAB= Dab

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Sample information: Fish bone

Sample	Context	Area	Sample	Context	Area	Sample	Context	Area
613	4129	K	499	9895	D	1090	18237	I
662	4150	K	1503	10054	E	1077	18240	I
609	4167	K	1534	10396	F	1109	18689	J
632	4392	K	1612	10891	N	805	20011	L
630	4434	K	1607	10987	N	823	20039	L
631	4434	K	1624	11281	N	824	20114	L
638	4497	K	1635	11329	N	2500	20226	L
641	4506	K	1647	11478	N	2506	22115	J
654	4682	K	1648	11492	N	1675	23090	N
676	4705	K	1017	13050	J			
666	4753	K	1014	13387	J			
674	4806	K	1020	13389	J			
675	4823	K	1021	13468	I			
681	4842	K	1035	13639	I			
901	5188	J	1047	13722	I			
913	5207	J	1051	13778	I			
914	5214	J	1056	13823	I			
909	5348	J	1057	13825	I			
915	5374	J	714	14022	K			
919	5392	J	725	14061	K			
920	5393	J	724	14062	K			
927	5448	J	729	14089	K			
925	5472	J	731	14090	K			
905	5939	J	730	14093	K			
2103	6152	H	762	14558	L			
2111	6339	H	781	14564	L			
2112	6342	H	707	14610	L			
2123	6538	H	474	15272	M			
2136	6710	H	508	15602	M			
2134	6712	H	537	15862	M			
2144	6750	H	520	15860	M			
2142	6764	H	2163	16029	H			
2161	6965	H	2166	16040	H			
1211	7186	G	2168	16054	H			
1213	7258	G	2185	16082	H			
1216	7298	G	2187	16139	H			
1818	8141	E	2107	17060	Q			
1851	8167	E	2438	17070	Q			
1852	8214	E	2439	17191	Q			
1922	8991	P	2443	17211	Q			
356	9064	D	2442	17226	Q			
324	9082	D	2449	17258	Q			
378	9312	D	2446	17282	Q			
	9585	D	1086	18200	I			
413	9596	D	1072	18216	I			
417	9610	D	1087	18229	I			

Note: Sample 1628 (11307) is missing from this list