

Ancient Monuments Laboratory Report 118/87

CANTERBURY: THE FISH REMAINS FROM MARLOWE SITES I - IV.

Alison Locker

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# Summary

Fish bones were examined from four sites in Canterbury called Marlowe I - IV. The deposits were of Roman, Saxon, Medieval and Post-Medieval date. The assemblage was dominated by marine fish, in the medieval and later deposits particularly by cod and related species. Flatfishes were also important and species such as garfish and thin-lipped grey mullet were present in small numbers.

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# Introduction.

A total of 3282 fish bones were examined from deposits of Roman, Saxon, Medieval and Post Medieval date. The latter two periods were the most prolific in terms of quantity of fish bones. Tables 1-7 display the number of bones for each species/group in each context.

In the tables certain categories have been used when pones could not be specifically identified, but could be assigned to a group. In particular large and small gadoid, where bones could be attributed to a size range within the Gadidae (cod family), but could not be placed more closely.

Some identifications were made by Penny Rhodes, notably from the Marlowe I and IIA, and these have been incorporated into the tables.

The sites have been considered together in this report because of the proximity of their location, the temporal comparability of the context groups, and all are thought to represent domestic refuse.

The following species were identified; Elasmobranchs (cartilaginous fish), conger ee! (Conger conger), herring (Clupea harengus), Salmonidae, pike (Escx lucius), cod (Gadus morhua) haddock (Melanogrammus aeclefinus), whiting (Merlangius merlangus), ling (Molya molya), garfish (Eglone belone), tub gurnard (Trigla lucerna), grey gurnard (Eutricla gurnardus), bass (Dicentrarchus labrax), thin-lipped grey mullet (Liza ramada), cf wrasse (Labridae), turbot (Scophthalmus maximus), plaice (Pleuropectes platessa), lemon sole (Microstomus kitt), halibut (Hippoglossus hippoglossus), and sole (Solea solea).

## The Roman Deposits

A total of 105 fish bones were recovered from deposits of early to late Roman date. These include cod, garfish, thin-lipped grey mullet, plaice and other indeterminate flatfish remains.

The density of fish bones per context is low, frequently restricted to a single bone. It is interesting to note that in contrast to later periods cod is very poorly represented, with a single positive identification from a late Roman context (408 from Marlowe 1V), and two instances of large gadoid remains from 648 Marlowe 1V and B469 Marlowe 113.

Garfish appear in small numbers in both Roman and later medieval contexts, but not during the Saxon period. This species comes into the shallow waters of Northern Europe in late spring, and can be found close inshore throughout summer and autumn, (Wheeler 1978, 184). A surface living fish, it could have been an inshore seasonal catch and was probably hooked.

Thin-lipped grey mullet, identified from a single early Roman deposit, 629 Marlowe 1V, was also found in two medieval deposits. This species, also occurs in the Mediteranean, stays close inshore entering freshwater. It is mainly a summertime migrant on

the Channel coasts (Ibid 274). The grey mullets (Mugilidae) were evidently favoured in the Roman world since there are recipes for dressings for salt grey mullet in Apicius (Flower and Rosenbaum 1980).

Apart from the few occurences of cod and large gadoid remains the remaining consumption of fish at these sites is restricted to the flatfishes. Turbot was identified from a mid Roman deposit, 1052 Marlowe 1. A shallow inshore species, it is common in the southern North Sea and the English Channel (Wheeler 1978, 344). Also found in the shallow waters of the Mediteranean turbot were enjoyed by the Romans, and Columella recommends a muddy stretch of shore for rearing flatfish such as sole, turbot and flounder, (Forster and Heffner 1968, 405). The only other species of flatfish positively identified from Roman deposits is the plaice, these may well have been trapped along the shoreline.

The fish from the Roman contexts at these sites suggest a limited exploitation of marine waters mainly shallow water, inshore fishing and a absence of freshwater fish. The management of fish ponds, both marine and freshwater, was however well known to the Romans, although freshwater fish were less highly prized than marine, (Wilson 1973, 21).

#### The Saxon period

151 fish bones were recovered from deposits of Saxon date, the total is influenced by 101 indeterminate highly fragmented pieces of skull and fin rays from context 368 Marlowe 111.

Cod, whiting and indeterminate gadoid remains are present, as are plaice, indeterminate plaice/flounder, plaice/lemon sole, tub gurnard and bass. The only record of conger eel comes from a context of late Saxon to Mid Medieval date (141 Marlowe 1).

Whether the absence of garfish is an indication that it was not exploited in this period, or is a feature of the small quantity of material available from Saxon deposits is unclear.

The limited data from Saxon deposits suggest two main types of fishing; the exploitation of the gadoid group, cod being caught on lines and secondly trapping and catching on lines of flatfish along the shore.

Bass was identified from a single preopercular in a deposit of Early to Middle Saxon date from Marlowe 1, as well as from a maxillary of Late Saxon to Mid Medieval date (17 Marlowe 111). The latter deposit also contained whiting and tub gurnard.

The quantity of bone from the Saxon period is really too small to show any changes within the period or from the Roman and Medieval periods. But as in the Roman deposits there is a complete absence of freshwater fish.

## The Medieval Period.

The remaining fish are all of Medieval and Post Medieval date, the largest samples being from Marlowe 111 (311 bones shown in Table 5) and in particular Marlowe 1V (1872 bones shown in Table

7). Apart from the increase in the total number of bones other changes are also apparent. In particular the rise in importance of the cod group, which except perhaps in the case of whiting, are large enough fish to be recovered by hand picking. As a percentage of the number of fish identified to species/group level at Marlowe 111 cod, large gadoid, small gadoid, whiting and ling represent 42%, and the flatfishes including turbot, plaice, sole, plaice/flounder 24%. These percentages are depressed by the presence of part of the skeleton of a tub gurnard in a late medieval feature. Similarly in Marlowe 1V the cod fish group represents 72% of the identifiable bone (dramatically lowered to 35% if the 30 whiting heads from feature 53c are excluded), while flatfishes represent 23%.

The dominance of the cod group is also mirrored in Marlowe 1 and 11 although the samples are not so large. This may be interpreted as increased exploitation of deeper waters off the the south east coast. However the presence of ling in Marlowe 11A, 111 and 1V is evidence for the importing of fish, in a dried or salted state, from a more northerly port, since this species is not found this far south in the North Sea. It also possible that other species may also have been brought to Canterbury in this manner.

Exploitation of flatfishes is an important feature of these sites in all periods, showing a continuous fishing industry along the shoreline and in shallow waters. In addition to the species identified from earlier periods halibut was tentatively identified from a cleithrum of a small individual. However this species would also have to have been brought down from a more northerly port based on its current distribution, it has also been identified from medieval deposits at Baker Lane, Kings Lynn, (Wheeler 1977, 406), where it was also considered to have been imported from northern waters.

Occasional elasmobranch vertebrae were present. These are indeterminate to species, and often poorly preserved the elasmobranch skeleton being composed of cartilage. None of the distinctive dermal denticles were present, possibly due to a lack of sieving through a fine mesh. It is likely that this group which includes sharks, dogfish and rays is under represented.

Conger eel, which can be caught on lines and in traps along rocky shorelines, was identified in small quantities from medieval and later deposits. Other marine species include herring (only identified from Marlowe 11B and 1V) which should perhaps have been much better represented, given the importance of the herring fleets during the medieval period when pickled and smoked herrings became a staple food from the 13th century onwards. Their low occurence may be biased by a lack of sieving in some deposits.

Garfish, gurnards, bass and thin-lipped grey mullet are often represented by few bones, except for the partial skeleton of tub gurnard previously mentioned, and would have added some variety to the more common cod fishes and flatfishes.

The only evidence for the consumption of freshwater fish are 7 skull fragments of pike, possibly the same fish, from the late Medieval pit 53c. The virtual absence of freshwater fish is surprising, especially since a number of mills are situated along

the river Stour, and traps were traditionally placed at these points to catch eels and salmon. The 'piscina' shown on the map of Canterbury circa 1500 at Christ Church Priory would only have stored live fish for the monks consumption. The dominance of marine fish at these sites may reflect the social status of those whose domestic refuse they represent.

## Bone Distribution within Contexts.

In general the fish bones seem to be randomly distributed within contexts, with the exception of the pit 53c of Late Medieval date in Marlowe IV. The identifiable bone in this feature was almost exclusively skull fragments except for 3 flatfish vertebral centra. The skull fragments included at least 30 whiting heads, and the whole deposit includes the waste from beheading fish.

#### Butchery.

A total of six examples of butchery were noted, all of mediaval date and include a single caudal vertebral centrum of ling, showing knifecuts, four cod vertebral centra showed evidence of cut marks and a single cod cleithrum had been chopped possibly while beheading the fish.

#### Size

Measurements were taken whenever possible to try and reconstruct the size of the fish. The size of cod was estimated from the measurements of the dentary and premaxilla (using the methods of Wheeler and Jones 1976) and in other instances were calculated from comparison with modern specimens of known length.

Measurements of two cod bones from Late Saxon deposits suggested lengths of 75 and 105cm total length. An average size for cod today is around 120cms, as the smaller fish tend to live closer inshore, it may not have been necessary to go into deep waters to catch these fish.

The remaining measured cod are of at least Mediaval date, the sizes are as follows in ascending order; 65, 75, 90, 90, 98, 106, and 125 cms, except for the latter none are large specimens.

The whiting which could be measured were all of at least Medieval date and estimated at between 15 and 45 cms, (n = 53). The deposit of thirty heads had an estimated size range of between 25 and 45 cms total length. The average size today is between 30 and 40 cms.

#### Conclusions

The fish from the Marlowe sites show a preference for marine fish from the Roman to Post Medieval period, with cod and the cod fish group rising to greater importance in Medieval times. Freshwater fish are represented only by a single pike head. Since the shortest route to the coast is approximately six miles to Whitstable even in the Roman period seasonally available marine fish could have been transported fresh to Canterbury. However

salted, dried and later pickled and smoked marine fish would also have been marketed.

# Acknowledgements

I should like to thank Penny Rhodes for allowing me to use her identifications, and Mr A Wheeler (BMNH) for use of reference material.

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Wilson C Anne 1973. Food and Drink in Britain. Constable.

Table 1. Canterbury - Marlowe 1.

Contex	(t	Con	Cod	Gad	Had	Whi	Bas	Tur	Pla	P/L	Uni	Tot
1052	MR						1,000		1			1
1155	MR		-			****	***	1		****	_	1
1070	LR		-	-		_			i		_	1
206 LF	(/ES										1	j.
433	ES		4v-* <b>b</b>		_			eten#	****	4	15750	Д,
398 E/	MS			~~					1			1
455 E/	/MS				<b></b>	***	1				1	,
71	LE							****	1	***	<u>‡</u>	7
105	LS		1				_					1
192	LE	***	İ		**	10.704						1
370	LS		*****	1	****		****	-				~~
212 LS	3/EM		3				-		*****			्र ••
172 LE	SZIMIM S	Ţ	+			****					***	1
52	ויוויו	-				3			Ü		15	21
64	[4][4]		1	-	-				room	-	-741	1
112	141-1		1		-				****			1
1.1.7	MIN		İ								3	4
118	MM		1			****					1	2
140	MM					1				-	11	12
192	lalla		<u>i</u>	4 (0.49)	1				Ţ	1		-5
205	Y  Y		1				<del></del> -				_	1
14	1_14		1		***							1
16	LM		1	-		_				_	***	1.
49	LM		4									4
137	LM		2		-		_		6	-	36	44
141	1_14	_			<b>–</b>		/ <b>*</b>		<b></b>		1	1
Total		1	19	1	Ţ	4	1	1	14	4	70	116

Cod = Cod

Had = Haddock

Bas = Bass

Pla = Plaice

Uni = Unidentifiable

MR = Mid Roman

LR/ES = Late Roman/Early Saxon E/MS = Early/Middle Saxon

LM = Late Medieval

Gad = Gadois

Whi = Whiting

Tur = Turbot

P/L = Plaice/Lemon Sole

LR = Late Roman

ES = Early Saxon

LS = Late Saxon

Table 2 Canterbury: Marlowe 11A

Context	Cod	Lin	Gad	Whi	F1a	Fla	Uni	Total
252 X11/X111 MM	<b></b>	<u></u>	-				ì	1
306 MM	_			Œ		_	4	ద
1110 X11/X111 MM	***		-	•	1	_	-	4
1120 X11/X111 MM		-	***		-	-	i	1
1122	_			***		_	88	88
1130 X11/X111 MM	1		****	-		10	46	57
1136 X11/X111 MM		_			1	1	-	2
1143 Xi1/Xi11 MM				**	1	***		j.
1156 X11/X111 MM	-	_	1		1	i	8	11
1167 X11/X111 MM	j			_		_		-1 -2
X11/X111 F S MM	30*	-	8	i	****	_	17	56
X11/X111 RP S MM	8	1	h-w -	Partir	to ten	3	E;	17
482 LM			1	9			32	42
Total	40	i	iO	12	Zį.	15	202	284

Keyş

Cod = Cod

Gad = Gadoid

Fla = Flaice

Uni = Unidentifiable

Lin = Ling

Whi = Whiting

Fla = Flatfish

MM = Mid Medieval LM = Late Medieval P S = Fit Sample RF S = Robber Pit Sample

\* = cods head lying on left side

Table 3 Canterbury: Marlows 11B

Context	Con	Her	Cod	LGd	SGd	Wh i	Gar	Fla	Sol	Fla	\ Uni	TL.
7588 ER			_		<b>-</b>		Man			1	1	2
1012 ER			****	*~-				3		100.00	6	9
B405 MR		brown		-				****			1.	1
565 MR					_	Marin.					1	ì
566 MR			_	*****		****					2	2
B469 LR	h			1.	***	_	•			··-	***	1
353 LR				***	_	_				1	_	1
B554 LR	-			***		*****		-			1	i.
114 MM		****		-	-				_	_	3	3
590 257B MM	***	_			-	31	_	-		14-4	141	172
V111 B115 MM		-		_		-	_			•	İ	İ
V111 B21 MM			****	1	***		*****	B		•		i.
X B96 MM	-		****		****		P-91	w-=	terten.		1	İ
X11 Pit/Tre MM	*		2	j.	-	****		2		2	19	26
X11 B145 MM			2			**-*			****		i	3
X11 Pits MM									****	***	14	j. 4
X111 16 MM	8	9	16	S	$\mathbb{Z}$	2	.3	19	$\mathbb{Z}$	16	115	197
X111 B12	i.			1			****	******		İ		3
X111 Pit sam MM			*****	****			-	~~			25	26
X111 4		****		4						+		Ą
Total	9	9	20	13	2	33	3	24	2		333	469

Con = Conger eel

Cod = Cod

SGd = Small Gadoid

Gar = Garfish

Sol = Sole

Uni = Unidentifiable

ER = Early Roman

LR = Late Roman

Her = Herring LGd = Large Gadoid

Whi = Whiting

Pla = Flaice

Fla = Flatfish

Tl = Total MR = Mid Roman

MM = Mid Medieval

Table 4 Canterbury: Marlowe 111 Part 1 (Roman to Saxon).

Context	Cod	Lgd	Whi	Gar	Gur	Bas	Wra	Pla	P/F	Fla	Uni	. TL	
11 1051 ER			-								3		-
11 1125 ER							***	1.00.0			1	1	
111 1300F MR					_					-	1	1.	
1V 878 MR	•						_		_	_	Ĺ	1	
1V/V111 588 L	_R'-	~~	-				_		reded.		i	1	
V 564 LR		****		***					-		10	10	
V 790 LR										-	1	1	
V 792 LR				17	-	-	*****				-~ *	1	
V 793 LR							-	-1 1/4		1		1	
V1-1X 597 LR		****			~~~				<u> </u>	4		1	
Vi-IX LR	-	****						*	No.		1	.i.	
V1 659 LR		-								1	12	13	
V1 807 LR		~		2							হ		
V11/1X 483 LF	₹ —		_						-	1		1	
V11 517 LR											2	2	
V11 802 LR											12	12	
1X 370 LR			-				-	1				4	
368 E/MS	****	i.					6	-	~~	_	101	108	
X11 17 LS/MM	1	1	1		1	1			***	_	4	9	
Total	1	<u></u>	1		;	1	6	1	1	7	154	178	

Cod = Cod
Whi = Whiting
Gur = Tub Gurnard
Wra = cf Wrasse

F/F = Flaice/Flounder

Uni = unidentifiable

LGd = Large gadoid

Gar = Garfish

Bas = Bass

Pla = Plaice

Fla = Flatfish indet

ER = Early Roman MR = Mid Roman LR = Late Roman E/MS = Early to Mid Saxon

LS/MM = Late Saxon to Mid Medieval

Table 5 Canterbury - Marlowe 111 Part 11 (Medieval to Post Medieval)

Context		Cod	LGd	SGd	Whi	Lin	Gar	Gur	Mul	Tur	Fla	Sol	P/F	Fla	Uni	T1
212 MM		•••	_	4		-		***			ton			****	55	59
1537 295 MM		****	···			No.	,		-		,,			****	1	1
X11 51 MM			1	***			•••		Politics.		****				1	2
X111/9 111 MM	***	-		****	1	-		-	*****	and and				leen.	_	1
X111/9 160 MM	1	1 .	1	-		10-11	·	41-94	-	****		100-0	2	-	.2	7
X111 190 MM			-		-	P****	1	4-4-		1				-	1	2
X111 192 MM	****		-	-			w <sub>i</sub> w			***			***	1		1
X111 239 MM	-		444			-				-			sep.		1	1
X111/9 Pit sa	a -	1		-	-	-	~~			in.			-	-	-	1
89 LM			_				~~		1***						-	1
V 80 LM	-		1	_	-		<del>-</del> ·	~	map.		2	****				I
1X 46 LM	-		-			****	-1	l with.	~	****			~	-	1	1
X111 111 LM	1144,	How		-	1	_				·ne			1	****		1
X111 156 LM	****		-	***	2	_			****	rue.			form.	***	_	1
X111 239 LM	1		_	_			***		****	***				_	1	3
X111 218 LM	-				_			Mar-			Au.		1			2
X1V/10 237 LM				-									1		****	1
XIV Pits LM	***	***	****		_	_	1		**			****			****	1
XIV/10 Pit LM	1	3	3	_		****			*****				***	-		7
XIV LM		2			2			31		2	5	<b></b> ,	-	-	74	116
XV 31B LM	nan.	2	10			-		4					-	-	2	14
XV/11 41 LM		-~			-	_		~~							1	1
XV/11 113 LM		ages,	~	-	_		****	(m)s	44-			hwr	1		-	1
XV/12 47 LM	···,		-	_		2	H-10	****	****	nin	m.	****			42	44
XV/12 52 LM	****		1	****	notes:			-	-140	144.	****		-		1	2
XV 9 LM/FM			-				***	-			-		***		5	5
XV 25 LM/FM				notes.	_	_		****				_	1			1
XV 27 LM/FM		-				_	-			-tet	_	***	****	-	3	3
XV 47 LM/PM		1	6	_	, , , , , , , , , , , , , , , , , , ,	Netro			****					***	-	7
XV 132 LM/FM		î	_			t-+-				1	,	·	***		1	3
XV=11/12 11B	1		_	****	_		Apr	k-9								1
XV=11 32 LM/F			_	***			ter		-		44		****	_		4
XV/11 37 LM/P		1		*1144	10-40		100		-	***	-	*****	****			1
XV/11 53 LM/F				-	****				1	_	_	5	1		3	10
XV/12 38 LM/P				***	_	_	9-11	, in						bened .	Here.	1
XV/12 145 LM/		1				***	-		14-0		-	_		-	****	1
Total	5	13	23	4		2	2	31	1	3	1.1	5	8	1	19a	311

Con = Conger eel
LGd = Large Gadoid
Whi = Whiting
Gar = Garfish

Cod = Cod SGd = Small Gadoid

Lin = Ling Gur = Tub Gurnard

Mul = Thin lipped grey mullet

MM = Mid Medieval LM = Late Medieval

LM/PM = Late Medieval to Post Medieval

Table 6 Canterbury - Marlowe 14. Part 1 (Roman to Saxon).

Context	Cod	LGd	Gar	Mul	P/F	Fla	Uni	71
11 629 ER	****			1		F449	her-	1
644 ER	-	-		***		****	2	32
111 712 MR			*****	by + mm		PF 8	J	3
V1 689 MR			<b>***</b>		h	1		1
V1 807 MR		****	3	,				3
V11 648 MR		1	+	<b>Manage</b>	1.		m41	2
V11 649 MR		****				*****	2	2
V11 654 MR		1	****		1	****	2	4
V11/V111 547 MR			M-44	1~~		****	1	1
1V/V111 408 LR	1		***	***	<del></del>	*****	2	3
V11/V111 607 LR		-					1	1.
V/V111 511 LR	1	****	1	****				1.
V111 631B LR		•	*****	****		4-1	1	1
X111 541 LR				****			1	1.
368 MLS			-	~~,	****	Mm4	1	1
X 470 LS			pans,-				1	1.
X 5500 LS	unt			<del></del>			6	ద
X/X1 Fits LS		****		***	B14.0-1		.3	3
X/X1 564 LS		***	haves	***		1	1	2
X/X1 349 LS	-	***	h+-	****	****	P-1-4	2	2
X1 387 LS	2	7	•			*****		7
X1 Pits comb. LS			****	e- 6++	22	al sup	pany	2
Total	3	9	4	1	4	2	29	52

Cod = Cod

Gar = Garfish

P/F = Flaice/Flounder

Uni = Unidentifiable

ER = Early Roman LR = Late Roman

LS = Late Saxon

LGd = Large Gadoid

Mul = Thin lipped grey mullet

Fla = Flatfish indet

T1 = Total

MR = Mid Roman

M-LS = Mid to Late Saxon

Table Z

Canterbury - Marlowe 1V. Fart 11 (Medieval to Post Medieval).

Context	Ela	Con	Her	Pik	Cod	LGd	SGd	Had	Whi	Lin	TGu	GGu	Sas	Tur	Pla	F/F	Sol	Hal	Fla	Uni	Τ1
75A MM			when .	****	purp	1	-				***	~	14.						1	2	4.
889 MM	1					_			and the	rter	****		-	****	•	•••	-			nm	1
111 104A MM		***	-	-		1	***				400			-			•	<b>4-</b> ,		2	ŝ
X1 333 MM	****					-				4**			-			1			1007	3	4
X1 325 MM	***	****	*****		444	_	-		best			***	-			-		*-	1		i
X111 Pits MM	1 -	8	5	444	26	25	****	2	4	-	.mm	ph-1-	3	1	31	30	18		16	560	729
X111 144 LP	4 ~	-				1	-	Pu	-			***	_	-		-	****	_	_	1	2
X111 366 LM	1 ~-					_	1	-			201	-	-	***	41-1	-	-	_		7	8
X1V 127c LM	4	-	arps.		-	-	***				***			****		-				1	1
X1V 136 LM	1	****					***		-				-			-		***		4	4
X1V 145A LM	1 -	m+								m4		***						_		11	11
X1V 185 LM	1	apant	-	-	***		-	<del></del> .			144		-	ana.	wheel		_		par.	1	1
X1V 193 LN	1		~	_			-	н.,	-	1					~~				-	2	Ŝ
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Key; Ela = Elasmobranch Her = Herring Cod = Cod

SGd = Small Gadoid Whi = Whiting TGu = Tub Gurnard

Bas = Bass Pla = Plaice Sol = Sole

Fla = Flatfish indet.

T1 = Total

MM = Mid Medieval

L-FM = Late to Post Medieval

Con = Conger eel

Pik = Pike

LGd = Large Gadoid

Had = Haddock

Lin = Ling GGu = Grey Gurnard

Tur = Turbot

P/F = Plaice/Flounder

Hal = Halibut

Uni = Unidentifiable

LM = Late Medieval