AML Report 4068

DEPARTMENT OF THE ENVIRONMENT
FAUNAL REMAINS PROJECT
DEPARTMENT OF ARCHAEOLOGY
UNIVERSITY OF SOUTHAMPTON

NOVEMBER 1983

A.M.L. REPORT NO. 4068

FISH REMAINS FROM MADDISON STREET, MEDIEVAL SOUTHAMPTON

S.M. COLLEY

Fish Remains from Maddison Street, Medieval Southampton

Sampling and recovery

In total 44 fish bones were recovered from archaeological contexts dated variously from the 13th to the 16th centuries. No sieving was carried out. 34 fish bone fragments were recovered during the hand trowelling of a variety of ditch, pit and gulley fills, and a number of other deposits the exact nature of which is unclear. In addition, 10 small fish bone fragments were found by careful examination of soil adhering to human skeletal remains. The unsystematic way in which the fish bones were recovered makes it most unlikely that the material represents the full range of species and sizes of fish originally deposited on the site. Only very limited conclusions can therefore be drawn about past fishing activity and the relative importance of fish in the diet.

Species, sizes and skeletal element representation

10 species or groups of fish were identified. Table 1 shows the number of fragments of the different types of fish present in each archaeological context. Members of the family Gadidae, in particular cod Gadus morhua and ling Molva molva are most strongly represented overall. All other species are represented by very few fragments. This pattern of relative representation of species need bear no relationship to the economic importance of different fish at Maddison Street. Sieving experiments carried out on a number of sites have shown that very small fish bones can be easily missed during hand excavation in the absence of sieving. Careful examination of soil adhering to human skeletal remains produced a number of very small fish bones which would probably have been missed by ordinary trowelling. It therefore seems very likely that small fish are under-represented in the Maddison Street assemblage.

In addition, the pattern of species and skeletal element representation (Table 2) may owe much to differential survival. The fish whose bones are most common in the samples (cod, ling and unspecified Gadidae) have large and robust bones which are more likely to survive in the soil than the bones of most of the other species present. In addition, the most common skeletal elements present overall are the more robust head and jaw bones, or are elements found in large numbers in individual fish skeletons (e.g. vertebrae and fin rays).

Very few measurements could be taken on the fish bones because the material was so fragmentary. Those measurements that could be taken are listed in Table 3 and are presented merely for comparison with material from other sites. However, in the absence of data relating bone measurements to fish size they could not be used to reconstruct the original lengths of the fish. Length estimates were made by matching the archaeological material against comparable bones from fish of known size and weight in the modern comparative collections. All the bones of ling and conger, and the majority of cod, represent large fish with lengths around 1m. One cod bone suggests a fish of around 250mm, and another a small fish less than 200mm in length. All the bones of flatfish present suggest fish with lengths of approximately 250mm-350mm. The single herring bone probably came from a fish approximately 250mm in length, and the single mackerel bone suggests a fish of around 300mm. A few very tiny fish bones, mostly not identified to species and mostly associated with the human skeletal material, may represent fish accidentally introduced into the site in the stomach contents of other fish, for example. A single dermal denticle of a skate or ray was present in the sample. This probably came from a medium or large fish.

Fish processing

Only three bones showed any signs of butchery. A cod vertebra was chopped right through medio-laterally and dorso-ventrally, presumably indicating that the fish was chopped into steaks along the backbone. A cod cleithrum had a series of superficial knife cuts which probably occurred during beheading. The cleithrum is situated at the back of the head of the fish. A ling precaudal vertebra had a superficial knife cut on its ventral side which may have occurred during gutting or filleting.

Among the most commonly represented species (in particular cod and ling) bones from both the head and the body of the fish are present. These suggests that these fish at least were caught locally and brought back to the site whole. There is no evidence, for example, for trade in salt fish which might be expected to result in distinctive patterns of butchery marks or the differential representation of heads and backbones. Herrings were commonly salted and traded whole, at least in the later Medieval period in Britain. However, the single herring bone recovered from Maddison Street does not provide sufficient evidence to comment on this aspect of fishing.

Fishing Methods

Hake is a deep water fish and it seems likely that this species and the very large cod and ling found at the site would have been taken from boats offshore, probably using some sort of hook and line. Most of the other species were probably also taken from a boat, but from closer to the shore. A variety of methods may have been used. Plaice, flounder and even skate/ray could have been taken from the shore. Flounder are often found in estuarine conditions and suggest that at least some fishing was carried out in the immediate vicinity of Medieval Southampton.

References

Morales, A. and Rosenlund, K. (1979), Fish Bone Measurements, Steenstrupia, Copenhagen.

Table 1 Maddison Street Fish Bones

Species/Group	Layer No.														
	27	32	51	55	63	66	92	97	108	117*	161	428	636*	1022*	Total
Hake Merluccius merluccius	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Ling Molva molva	1	3	2	–	1	1	–	–	1	–	1	–	–	–	10
Conger eel Conger conger	–	1	–	1	–	–	–	–	–	–	–	2	–	–	4
Cod Gadus morhua	–	5	1	–	–	1	–	1	–	–	–	–	–	–	8
Plaice Pleuronectes platessa	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
Flounder Platichthys flesus	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
Right-eyed flatfish NFI Pleuronectidae	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1
Herring Clupea harengus	–	–	–	–	–	–	–	–	–	–	–	–	1+	–	1
Skate/Ray NFI Rajidae	–	–	–	–	–	–	–	–	–	–	–	–	1+	–	1
Mackerel Scomber scombrus	–	–	–	–	–	–	–	–	–	–	–	–	–	1&	1
Cod family Gadidae	–	6	–	–	–	–	–	–	–	2¾	–	–	1@	–	9
Unidentifiable fish	–	2	–	–	–	–	–	–	–	3¾	–	–	1+	–	6
Total	2	18	4	1	1	2	1	1	1	5	1	2	4	1	44

NFI = Not further identified

* = Material from around human skeletons: + Pelvis/sacrum
& Nasal passage
@ Scapula/ribs
¾ Abdominal contents

Table 2

Representation of skeletal elements - Maddison Street fish

	Hake	Ling	Conger eel	Cod	Plaice	Flounder	Right-eyed flatfish	Herring	Skate/Ray	Mackerel	Gadidae	Unidentified	TOTAL
Caudal vertebra	1	2	-	3	-	-	1	1	-	-	2	-	10
Precaudal vertebra	-	4	1	-	-	-	-	-	-	-	-	-	5
Maxilla	-	2	-	1	-	-	-	-	-	-	1	-	4
Vertebra NFI	-	-	-	-	1	-	-	-	-	-	1	1	3
Fin ray	-	-	-	-	-	-	-	-	-	-	1	2	3
Articular	-	-	1	1	-	-	-	-	-	-	-	-	2
Supraclavicle	-	1	-	1	-	-	-	-	-	-	-	-	2
Dentary	-	-	2	-	-	-	-	-	-	-	-	-	2
Preoperculum	-	-	-	1	-	-	-	-	-	-	-	-	1
Thoracic vertebra	-	1	-	-	-	-	-	-	-	-	-	-	1
Cranial bone	-	-	-	-	-	-	-	-	-	-	1	-	1
Branchiostegal	-	-	-	-	-	-	-	-	-	-	1	-	1
Branchial bone	-	-	-	-	-	-	-	-	-	-	1	-	1
Cleithrum	-	-	-	1	-	-	-	-	-	-	-	-	1
Anal pterygiophore	-	-	-	-	-	1	-	-	-	-	-	-	1
Scale	-	-	-	-	-	-	-	-	-	-	-	1	1
Spine	-	-	-	-	-	-	-	-	-	-	-	1	1
Tooth	-	-	-	-	-	-	-	-	-	-	1	-	1
Dermal denticle	-	-	-	-	-	-	-	-	1	-	-	-	1
Premaxilla	-	-	-	-	-	-	-	-	-	1	-	-	1
Unidentified frag.	-	-	-	-	-	-	-	-	-	-	-	1	1
Total	1	10	4	8	1	1	1	1	1	1	9	6	44

Table 3

Measurements taken on Maddison Street fish bones (mm)

Caudal vertebra - centrum height

Hake 12.5

Ling 14.3

Cod 20.4

Precaudal vertebra - centrum height

Conger 12.4

Ling 21.7;20.5;23.2;15.9

Vertebra - centrum height

Plaice 5.9

Dentary - height

Conger 11.3, 9.5

Supraclavicle - length

Ling 11.0

Supraclavicle - height

Ling 6.6

Articular - width

Conger - 12.4

(Measurements follow Morales and Rosenlund (1979))