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**Hand collected shell from excavations at Flixborough,  
North Lincolnshire (site code: FLX89)**

by

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**Summary**

*Fourteen boxes of hand collected shell were recovered from deposits mainly of Middle to Late Saxon (7<sup>th</sup>-11<sup>th</sup> century) date at Flixborough, N. Lincolnshire.*

*The shell remains were primarily of oyster, with some minor components of other edible marine and estuarine taxa, representing human food waste. The remains were, in general, very poorly preserved although an initial assessment undertaken in 1993 reported that 'Most of the shell was in good condition (and likely to remain so)'. Where possible, patterns of exploitation and disposal of the remains have been examined by phase groups in an attempt to explore this aspect of the site's economy.*

**Keywords:** FLIXBOROUGH; NORTH LINCOLNSHIRE; MIDDLE TO LATE SAXON; ANGLIAN; 7<sup>TH</sup> -11<sup>TH</sup> CENTURY; HAND COLLECTED SHELL; OYSTER (*OSTREA EDULIS*)

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## *List of Tables and Figures*

*Table A. Date ranges for phase groups.*

*Table B. Complete list of taxa represented in the hand collected shell assemblage.*

*Table C. Number of contexts from which shell was recovered by hand collection by phase group and context type.*

*Table D. Weight of shell recovered by hand collection (in grammes) by phase group and context type.*

*Table E. Summary of hand collected shell remains recovered from Flixborough by context.*

*Table F. Summary information for hand collected shell by Phase group.*

*Table G. Number of measurements of oyster valves possible by Phase group and measurement.*

*Table H. Summary information for oyster valve measurements by Phase group.*

*Fig 1. Average values of oyster valve measurements by Phase group.*

*Fig 2. Average weight of hand collected shell per context by Phase group and Context type group.*

*Fig 3. Weight of hand collected shell by Phase group and Context type group.*

## Hand collected shell from excavations at Flixborough, North Lincolnshire (site code: FLX89)

### Introduction

Excavations at a site near Flixborough, North Lincolnshire (NGR SE 876 143) by the Humberside Archaeology Unit (now Humber Archaeology Partners) in 1989 revealed within thick deposits of blown sand containing abundant evidence for occupation in the Anglian period (7<sup>th</sup>-early 11<sup>th</sup> centuries), with some traces of earlier and later material. The deposits were a rich source of evidence, especially in the form of artefacts and vertebrate remains, and preliminary and subsequent bioarchaeological assessments (Dobney et al. 1993; 1994; Hall and Milles 1993; Loveluck and Dobney 1998) suggested that limited further study of the hand-collected shell assemblage may shed some light on certain aspects of the site's economy. To this end a modest programme of study of was undertaken in the period 1998-2000.

### Methods

Fourteen boxes (each of approximately 16 litres) of hand-collected shell (representing material from 336 contexts of which 27 were from later deposits (Phase 7 or later), unphased, or too broadly phased for classification) were recorded. All of the remains were identified as closely as possible using the EAU comparative collection and reference works—a low power binocular microscope was employed to assist the identifications where necessary.

The preservational condition of the shell was recorded using two four-point scales for erosion and fragmentation—scale points were: 0 - none; 1 - slight; 2 - moderate; 3 - high.

The weight (in grammes) of remains from each Context was recorded.

The data was initially recorded on paper and later entered into a series of Paradox data tables for subsequent interrogation. Both Paradox and Microsoft Excel were used in the production of summary and graphical presentations of the data.

### Oyster shell

For oyster (*Ostrea edulis* L.) shell, by far the largest component of the assemblage, additional records were made regarding: numbers of left, right and indeterminate sided valves; evidence of having being opened using a knife or similar implement; damage from other marine biota (polychaet worms and dog whelks); encrustation by barnacles.

Measurements of the valves were taken using electronic calipers following Claassen (1998, p. 109).

Patterns of distribution and disposal were examined by summary phase groups (defined as for the vertebrate remains, Table A) and Context type.

For oysters, changes to the size of individuals making up the assemblages were examined by phase group.

### Results

Hall and Milles (1993) states that 'Most of the shell was in good condition (and likely to remain so)'. However, when the remains were examined again for main phase recording (in 1999) this was not the case. Fragmentation and erosion scores for most contexts were either 2 or 3 (moderate or high); almost all of the bags of shell contained very many mm-flakes of shell,

any many also contained larger fragments which had separated post-excavation (and probably post-assessment).

For the oyster shell, some measurements of the valves were still possible, but in most cases these were restricted to the length of the anterior scar and its height (relative to the valve hinge) for left and right valves (measurements LAS, LASH, RAS, RASH).

Summary data is presented in Tables A-H and Figs. 1-3.

#### *Phase 1*

Only three of the Phase 1 contexts yielded any hand collected shell (two left valves and some fragments, total weight 40 g). All of the remains were of poorly preserved (average erosion: 3.0; average fragmentation: 2.7) oyster shell. The two left valves showed clear evidence of having been opened using a knife or similar implement, indicating that the oysters had been consumed by humans.

The shell was recovered from two context types, two post hole fills and one occupation deposit.

#### *Phase 2-3a*

Forty-three contexts produced hand collected shell with a total weight of 2554 grammes. With the exceptions of two mussel (*Mytilus edulis* Linnaeus) valves, a common whelk (*Buccinum undatum* (Linnaeus)), and a single fragment of whelk (not identifiable to species) shell, all of the remains were of poorly preserved (average erosion: 2.4; average fragmentation: 2.1) oyster shell. Four of the valves showed damage from polychaet worms (burrowing) but no other evidence of damage from marine biota was noted. A little under half (44%) of the valves showed clear evidence

of having been opened, and presumably eaten, by humans.

Most of the shell was from two dumps (833 g), 16 post hole fills (690 g), 12 occupation deposits (549 g), and two soakaway fills (265 g). The remainder being a few tens of grammes of material from each of 8 other context types.

#### *Phase 3b*

Phase 3b yielded the largest quantity of hand collected shell totalling 18033 grammes from sixty-seven contexts, most of this (10892 g, 24% of the assemblage from the whole site) being concentrated in the 13 dump contexts from this phase group and, in particular, in Context 5617 (4371 g), Context 6235 (3929 g), and Context 5983 (1274 g). Preservation of the remains was, again, poor (average erosion: 2.7; average fragmentation: 2.5). Two contexts (2722 and 6040) contained fragments of whelk shell (not identifiable to species), Context 4322 gave two fragments of unidentified marine shell, and Contexts 11699 and 11766 yielded a few fragments of land snail shell (*Cepaea/Arianta* sp. from 11699 but only unidentifiable fragments from 11766). Other than the remains noted above, the recovered shell was all of oyster. Thirty-six percent of the oyster valves showed damage indicative of having been opened by humans and a small number of valves (6%) showed damage from other marine biota (mostly burrowing by polychaet worms with a single valve having some barnacle encrustation). Cut features (19 post hole fills, 7 pit fills, and 9 trench fills) accounted for much of the remaining material (6066 g).

### *Phase 4-5b*

This phase gave the greatest number of shell-bearing contexts (119) with a total weight of shell of 7472 grammes. Only twelve contexts gave small amounts of shell other than of oyster (Context 207: many fragments of unidentified non-marine shell of ?one individual; Context 669: one whelk fragment not identifiable to species; Context 1512: one periwinkle (*Littorina littorea* (Linnaeus))); Context 2438: one unidentified fragment of marine shell; Context 2562: one whelk fragment not identified to species; Context 2610: several fragments of whelk, possibly of one individual, not identified to species; Context 3758: one common whelk and one red whelk (*Neptunea antiqua* (Linnaeus))); Context 5193: one red whelk; Context 5864: six unidentified fragment of non-marine shell; Context 6490: one common whelk; Context 8192: one common whelk; Context 8749: one mussel valve) which, again, accounted for the vast majority of the remains. The shell was mostly poorly preserved (average erosion: 2.6; average fragmentation: 2.5) and a few of the oyster valves showed damage by other marine biota (17 valves showed polychaet worm burrowing and three had evidence of encrustation by barnacles). Forty-five percent of the oyster valves showed damage characteristic of having been opened by humans.

Most of the remains were, again, from dumps (4652g from 35 contexts) and post hole fills (1371 g from 37 contexts) with the remainder distributed between a further 7 context types.

### *Phase 6*

Phase group 6 contexts (57 in total) gave the second highest total weight of shell (11126 g) which was, again, poorly preserved (average erosion: 2.6; average fragmentation: 2.4). As for Phase groups 3b

and 4-5b, the shell was mostly recovered from dump deposits (9 contexts, total of 8262 g) and in particular from Context 3891 (7270 g). Nine contexts gave marine shell remains other than oyster (Contexts 6471, 6498, 6499 and 8461, each gave a single red whelk; a mussel valve was recovered from Context 5281; common whelk was present in Contexts 6489 and 6798; Contexts 1889 and 3891 gave fragments of whelk not identified to species). Three contexts (1837, 2127, and 6471) yielded a little land snail shell, these fragments were all of ?*Cepaea/Arianta* sp. and amounted to the remains of, at most, two individuals in each case. A small number of oyster valves showed damage from other marine biota—nineteen had been burrowed by polychaet worms and four had been slightly encrusted by barnacles. Evidence of opening, and presumably consumption, by humans was recorded from 45% of the oyster valves.

### *Phase 6iii*

The twenty contexts from this phase yielded a total of 2121 grammes of hand-collected shell. Preservation was very poor (average erosion: 3.0; average fragmentation: 2.9). Once again, almost all of the recovered remains were of oyster the exceptions being representatives of single individuals of cockle (*Cerastoderma edule* (Linnaeus)), mussel and common whelk, from Context 6300, and a red whelk (and another whelk fragment not identified to species) from Context 1459. Evidence of damage from other marine biota was limited to polychaet worm burrows on six valves from Context 6300 and on one valve from each of contexts 1461 and 7817. Clear evidence of having been opened by humans was recorded from 37% of the oyster valves.

Eighteen of the 20 contexts from this Phase group were described as dark soils but, one again, most of the shell was recovered from dumps (2 contexts, 1614 g).

## Discussion

The reason for the post-excavation deterioration of the shell is unknown but a possible explanation is outlined below. The mm-flakes are likely to be the result of physical erosion caused by the movement of the material but the extent of the damage seems too great unless preceded by softening of the shell. One possible explanation would be that the shell became damp during storage (which would account for the softening and subsequent erosion of the extremities of the valves). If it were then subject to fluctuations in temperature within a few degrees of freezing this might account for the larger scale flakes—perhaps caused by a process akin to ‘freeze-thaw action’ separating the shell along the plane of growth layers. Subsequent movement of the assemblage would certainly reduce many of the fragile larger shell flakes to mm-scale fragments.

Hand collected shell was present in contexts from all phases of the site (mostly from Phase 3b (39% by weight) and Phase 6 (24% by weight)). Phase 4-5b contained the most shell bearing contexts (119) but only 16% of the assemblage by weight. Shell was recovered from a range of context types but mostly from dumps (66 contexts, 57% of assemblage by weight) with the largest concentrations within Phase 3b (13 dump contexts, 24% of assemblage by weight) and Phase 6 (9 dump contexts, 18% of assemblage by weight).

Oyster shell was by far the largest component of the assemblage through all phases of the site. Evidence of the oysters having been opened using a knife or similar implement was present as characteristic ‘V’- or ‘W’-shaped notches on the valve margins of approximately 40% of the remains—this percentage remaining fairly consistent (36-47%) throughout the phases of the site (apart from in Phase 1 where the 100% record is rather misleading given that a total

of only two valves and some shell fragments were recovered). These percentages almost certainly indicate minimum values as post-depositional, and indeed post-excavation, erosion and fragmentation of the shell is likely to have destroyed opening marks on some of the remains.

Where average values of oyster valve measurements by phase group could usefully be determined (i.e. LAS, LASH, RAS and RASH for phase groups 2-3a through 6iii), these remained consistent through time suggesting that the oysters were from cultivated (or at least managed) rather than natural populations. From current evidence, the oysters could only have been imported to the site from the Kent, Essex or Suffolk coasts, or from the Firth of Clyde (Winder 1992 and pers. comm.). However, Kenward (1998) has speculated that exploitation of local (but as yet unlocated) oyster beds may well have been more widespread along the east coast of England. Certain organisms (e.g. *Polydora* spp. and barnacles) which infest oysters have known preferred habitats, and this might help to identify the source of the oysters. However, although evidence of the damage caused by these epibionts was noted on some valves the poor preservational condition of the shell prevented this from being pursued further.

It seems likely that the few remains of other edible marine taxa were also derived from human food waste—the extremely small number of ‘non-edible’ species having been collected accidentally. All of these taxa are common off the coast of north-eastern England today. The fact that so few edible shellfish other than oysters are represented suggests that any other locally available seafood resources were not systematically exploited for consumption at the site.

A marked drop in the average weight of shell remains per context, in particular from ‘dump’ contexts was observed in Phase

group 4-5b (Fig. 2) perhaps indicating some disruption at the site or an interruption in trading.

Overall, the evidence would seem to indicate that the oysters were imported to the site—the fact that there were so few other edible shellfish remains recovered, the consistent size of the individuals suggesting a cultivated population, and the drop in average weight per context of recovered shell in Phase group 4-5b.

Figure 3 shows that disposal of shellfish remains appears to have been fairly systematic throughout the occupation of the site—most of the remains were concentrated in ‘dump’ deposits—with some more dumping or accumulation in cut features (e.g. pits, post holes). Very few remains were recovered from non-cut features (e.g. hard standing, paths). Though this may simply represent that remains casually discarded onto surfaces where they would be subject to trampling and other destructive processes have consequently not survived.

A few of the oyster valves appeared to have been deliberately perforated in antiquity having slots or holes that did not appear to be the result of either fresh (recent) breakage or damage by predatory molluscs (Contexts 1462 (6iii), 2208 (4-5b), 4245 (2-3a), 6630 (3b), and 11631 (3b)). However, in view of the poor preservational condition of the remains, the possibility that this damage occurred during excavation cannot be discounted (valves showing damage almost certainly caused during excavation were recovered from Contexts 6680 (6) and

6798 (6), and by erosion from Contexts 3255(6) and 11759 (3b)).

Hand collected remains of land snails were all either unidentified or of catholic taxa and of no interpretative value.

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Table A. Date ranges for phase groups.

Phase group	Period
1	mid to late 7 <sup>th</sup> century
2-3a	late 7 <sup>th</sup> to mid 8 <sup>th</sup> century
3b	mid 8 <sup>th</sup> to early 9 <sup>th</sup> century
4-5b	early 9 <sup>th</sup> to early 10 <sup>th</sup> century
6	early to late 10 <sup>th</sup> century
6iii	late 10 <sup>th</sup> to early 11 <sup>th</sup> century
7+	later than early 11 <sup>th</sup> century or too broadly phased for classification

Table B. Complete list of taxa represented in the hand collected shell assemblage.

Common name	Species/Taxon
Periwinkle	<i>Littorina littorea</i> (L.)
Whelk	<i>Buccinum undatum</i> (L.)
Red whelk	<i>Neptunea antiqua</i> (L.)
Mussel	<i>Mytilus edulis</i> L.
Oyster	<i>Ostrea edulis</i> L.
Cockle	<i>Cerastoderma edule</i> (L.)
-	<i>Cepaea/Arianta</i> sp.
-	<i>Helix</i> sp.



*Table C. Number of contexts from which shell was recovered by hand collection by phase group and context type.*

**Key:** DCH - Ditch fill; DEP - Depression fill; DKSL - Dark soil; DUMP - Dump; GLY - Gully fill; GRAVE - Grave cut; HARD - Hard standing/post pad; HRTH - Deposits associated with hearths; OCC - Occupation deposit; OVEN - Deposits associated with ovens; PATH - Path; PH - Post hole fills; PIT - Deposits associated with pits (e.g. fills, linings); PPIPE - Post pipe fills; SLOT - Slot fill; SOAK - Soakaway fill; TCH - Trench fill; UNKN - Unknown.

Context type (group)	Phase group							Grand Total
	1	2-3a	3b	4-5b	6	6iii	7+	
DCH (CUT)							2	2
DEP (not-CUT)		1						1
DKSL (not-CUT)					17	18		35
DUMP (DUMP)		2	13	35	9	2	5	66
GLY (CUT)					2			2
GRAVE (CUT)		1						1
HARD (not-CUT)			1				1	2
HRTH (not-CUT)		1	1	1			1	4
OCC (not-CUT)	1	12	15	9	6		3	46
OVEN (not-CUT)				2			1	3
PATH (not-CUT)				6			1	7
PH (CUT)	2	16	19	37	1		5	80
PIT (CUT)		2	7	16	8		3	36
PPIPE (CUT)		3						3
SLOT (CUT)		1		3	1			5
SOAK (CUT)		2	2					4
TCH (CUT)		1	9	8	13			31
UNKN (not-CUT)		1		2			5	8
<b>Grand Total</b>	<b>3</b>	<b>43</b>	<b>67</b>	<b>119</b>	<b>57</b>	<b>20</b>	<b>27</b>	<b>336</b>

Table D. Weight of shell recovered by hand collection (in grammes) by phase group and context type. For **Key** to context type abbreviations see Table C.

Context type	Phase group							Grand Total
	1	2-3a	3b	4-5b	6	6iii	7+	
DCH (CUT)							43	43
DEP (not-CUT)		16						16
DKSL (not-CUT)					1055	507		1562
DUMP (DUMP)		833	10892	4652	8262	1614	118	26371
GLY (CUT)					87			87
GRAVE (CUT)		12						12
HARD (not-CUT)			305				4034	4339
HRTH (not-CUT)		26	3	1			5	35
OCC (not-CUT)	14	549	742	335	365		96	2101
OVEN (not-CUT)				67			7	74
PATH (not-CUT)				150			10	160
PH (CUT)	26	690	2395	1371	54		89	4625
PIT (CUT)		53	1219	467	212		274	2225
PPIPE (CUT)		72						72
SLOT (CUT)		18		37	53			108
SOAK (CUT)		265	25					290
TCH (CUT)		18	2452	377	1038			3885
UNKN (not-CUT)		2		18			133	153
<b>Grand Total</b>	<b>40</b>	<b>2554</b>	<b>18033</b>	<b>7475</b>	<b>11126</b>	<b>2121</b>	<b>4809</b>	<b>46158</b>

*Table E. Summary of hand collected shell remains recovered from Flixborough by context.*

**Key:** Cont = Context number; Ph Grp = Phase Group; E = Erosion; F = Fragmentation; Wt = weight (in grammes); N L = Number of left oyster valves; N R = Number of right oyster valves; N I = Number of indeterminate side oyster valves; N worm = Number of oyster valves with damage from polychaet worm burrowing; N barn = Number of oyster valves encrusted by barnacles; N kn = Number of oyster valves showing 'knife' damage; N cockle = Number of cockle valves; N mus = Minimum number of individuals for mussels; N wh = Number of common whelks; N red wh = Number of red whelks; N peri = No. of common periwinkles; Other marine = notes on other marine taxa; Non-marine = notes on non-marine taxa present.

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes
1a		3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few flakes only to 25 mm
1b		3	3	8	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	a few flakes to 40 mm
2b		3	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	many frags of ?1 individual of unid. species	1 flake only to 47 mm
2c		3	3	18	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes and approx. larger to 30 mm
6	4-5b	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few flakes only to 25 mm
9	4-5b	3	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 1 larger to 44 mm
11	4-5b	3	3	59	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	?1 knife mark; ?1 worm-burrowed
17	4-5b	3	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 1 larger to 42 mm
65	4-5b	3	3	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 5 larger to 62 mm
67	4-5b	3	3	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 8 larger to 40 mm
72	4-5b	3	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 6 larger to 49 mm
78	6	3	3	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 5 larger to 63 mm
82	4-5b	3	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 1 larger to 42 mm
207	4-5b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	many frags of ?one individual of unid. species	

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes
230	4-5b	3	3	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5 flakes to 54 mm
239	4-5b	3	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2 flakes to 40 mm
407		3	3	12	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes
429	4-5b	3	3	14	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes
460	6iii	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 flake to 34 mm
461	4-5b	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 flake to 10 mm
463		3	3	41	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	some mm-flakes
484		2	3	4034	75	83	21	47	38	2	0	84	0	0	0	0	0	0	0	many mm-flakes plus many larger to 65 mm; some left and right valves perforated and/or pitted
535	6iii	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3 flakes only
617	6iii	3	3	5	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	a few flakes/fragments to 10 mm
636	6iii	3	3	178	8	3	8	3	1	0	0	2	0	0	0	0	0	0	0	many flakes/fragments to 35 mm
669	4-5b	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	1 whelk fragment unidentified to species	0	
677	4-5b	3	3	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
707	2-3a	3	2	18	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	a few flakes/fragments to 15 mm
748	2-3a	3	3	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	large flakes/fragments only to 52 mm
764	2-3a	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	1 whelk fragment unidentified to species	0	?red whelk
767		3	3	15	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	many mm-flakes plus a few to 40 mm
779	6iii	3	2	10	0	1	1	0	1	0	0	1	0	0	0	0	0	0	0	1/?2 knife marks

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes	
875	2-3a	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3 flakes/fragments to 45 mm
923	6	3	3	20	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	many flakes/fragments to 20 mm
968	3b	3	3	354	13	12	18	4	2	0	0	3	0	0	0	0	0	0	0	0	many flakes/fragments to 45 mm; heavy pitting on 1 indet. valve
1136	2-3a	3	3	6	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	
1142	3b	3	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	some flakes to 38 mm
1291		3	2	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1439	6iii	3	3	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
1450	6iii	3	3	29	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	many mm-flakes to 5 mm
1454	6iii	3	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
1458	6iii	3	3	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
1459	6iii	3	3	76	0	1	9	0	1	0	0	1	0	0	0	1	0	0	0	0	many mm-flakes plus a few larger to 10 mm
1461	6iii	3	3	76	2	3	2	1	0	1	0	1	0	0	0	0	0	0	0	0	many mm-flakes plus some larger to 15 mm
1462	6iii	3	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	hole through valve cause indeterminate
1465	6iii	3	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
1479	6iii	3	3	60	2	0	0	2	0	0	0	0	0	0	0	0	0	1 whelk fragment unidentified to species	0	0	many flakes/fragments to 8 mm
1512	4-5b	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
1655		3	3	6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	some flakes/fragments to 5 mm
1660	6	3	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
1662	4-5b	3	3	27	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes	
1672	4-5b	3	3	118	4	4	3	2	0	0	0	0	0	0	0	0	0	0	0	0	many flakes/fragments to 33 mm
1680	6	3	3	16	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	some flakes to 20 mm
1706	3b	2	2	305	12	0	30	8	0	0	0	0	0	0	0	0	0	0	0	0	1 - 3 mm pitting on 1 side-indeterminate valve
1707	4-5b	3	3	16	1	0	6	0	0	1	0	0	0	0	0	0	0	0	0	0	?1 worm burrowed
1708	6	3	2	62	2	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1 left valve heavily pitted
1728	4-5b	3	2	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
1730	4-5b	3	3	5	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1 fragment of very rotted ??mussel shell
1737		3	1	10	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1774	6	3	2	30	1	2	0	1	0	0	0	1	0	0	0	0	0	0	0	0	plus many tiny fragments to 10 mm
1812	6iii	3	3	78	0	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	many mm flakes plus approx 30 larger flakes to 46 mm
1831	6	3	3	31	2	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	many mm flakes
1833	6	3	2	6	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	some mm flakes
1834	6	2	2	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
1835	6	3	2	29	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	some mm flakes plus 1 larger flake to 30 mm
1836	6	2	2	67	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	?1 knife mark
1837	6	2	2	36	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2 fragments of ?Cepaea/Ar ianta sp.
1838	6	2	1	39	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	a few mm flakes
1889	6	3	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 fragment of ?whelk (species indeterminate)
1890	6	3	2	37	2	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	?1 worm burrowed; some mm flakes plus 1 larger to 15 mm

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes	
1891	6	3	1	56	0	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	some mm flakes
1892	6	3	2	12	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	a few mm flakes
1982	3b	3	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	some mm flakes plus i larger flake to 25 mm
1995	6	3	3	120	1	3	1	1	2	0	0	3	0	0	0	0	0	0	0	0	many mm flakes plus a few larger flakes to 45 mm
2002	4-5b			67	2	2	2	0	0	0	0	1	0	0	0	0	0	0	0	0	?1 knife mark; many mm flakes plus some larger to 15 mm; heavy pitting on 3 valve fragments
2004	4-5b	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	flakes and fragments to 25 mm
2030	4-5b	3	3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	many mm flakes plus 2 larger fragments to 37 mm
2105	4-5b	3	3	22	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	some mm-flakes
2111	4-5b	3	3	24	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	some mm-flakes plus a few larger to 15 mm
2120	6	3	3	26	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	some flakes to 35 mm
2127	6	3	3	54	1	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1 of Cepaea/Arianta sp. a few mm-flakes plus larger to 41 mm
2130	4-5b	3	3	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	flakes only to 50 mm
2170	4-5b	3	3	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes
2208	4-5b	3	3	624	11	6	1	0	0	1	0	7	0	0	0	0	0	0	0	0	many mm-flakes plus larger to 65 mm; 6 mm diameter hole through one right valve - cause indet.; 1 left valve heavily pitted
2210	4-5b	3	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	flakes only to 53 mm
2337	2-3a	3	3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	some mm-flakes plus one larger fragment to 52 mm
2386	2-3a	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flkes plus 1 larger to 36 mm
2438	4-5b	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 unidentified fragment	0		

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes
2453	4-5b	3	3	15	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	?1 knife mark; a few mm-flakes plus a few larger to 30 mm
2485	3b	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 1 larger to 32 mm
2488		3	3	31	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	a few mm-flakes plus 2 larger to 45 mm
2562	4-5b	3	3	9	0	0	1	0	0	0	0	0	0	0	0	0	0	1 whelk fragment unidentified to species	0	
2570		3	3	13	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 2 larger to 40 mm
2610	4-5b	3	3	26	0	0	0	0	0	0	0	0	0	0	0	0	0	small gag of whelk fragments unidentified to species	0	flakes only to 45 mm
2659	4-5b	2	2	14	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes
2664	3b	2	1	53	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes; indet. valve fused to left valve
2722	3b	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	1 whelk fragment unidentified to species	0	
2726	3b	3	2	64	3	0	0	0	0	0	0	2	0	0	0	0	0	0	0	a few mm-flakes
2732		3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	flakes only to 33 mm
2740	2-3a	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 fragment to 35 mm
2742	4-5b	3	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	flakes only to 31 mm
2784	2-3a	3	3	97	3	0	1	0	0	0	0	2	0	0	0	0	0	0	0	some mm-flakes plus a few larger to 48 mm
2915		3	3	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	flakes only to 66 mm
3185		3	2	17	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes
3194	1	3	3	14	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	?1 knife mark; a few mm-flakes
3219	4-5b	3	3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	flakes only to 52 mm



Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes	
3236	6	3	3	18	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	some mm-flakes plus larger to 44 mm
3237	4-5b	2	2	59	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	a few mm-flakes plus larger to 46 mm
3239		3	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 flake only to 28 mm
3242	6iii	2	2	22	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	a few mm flakes plus a few larger to 12 mm
3255	6	3	2	41	1	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	a few mm flakes; 1 mm pitting on 1 right valve (approx 8 holes)
3273	4-5b	3	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm flakes plus 4 larger to 31 mm only
3275		3	3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm flakes plus a few larger to 48 mm only
3280		3	3	27	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	?1 knife mark; some mm flakes plus some larger to 43 mm
3281	2-3a	2	2	37	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	some mm flakes
3331	3b	3	3	39	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	a few mm flakes plus 4 larger to 50 mm
3418	2-3a	3	2	26	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	?1 knife mark; valve ?burnt
3427		3	3	26	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	?1 knife mark; a few mm flakes plus a few larger to 30 mm
3451	6iii	3	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3 flakes to 35 mm only
3479	3b	3	3	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes and larger to 44 mm only
3504	3b			10	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	a few mm-flakes and approx. 6 larger to 35 mm
3600	3b	3	3	35	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	?2 knife marks; a few mm-flakes + 2 larger to 52 mm
3610	6	3	3	58	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	?1 knife mark; some mm-flakes and approx. 25 larger flakes to 45 mm
3704	2-3a	3	3	12	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	a few mm-flakes plus 1 larger to 36mm
3711	4-5b	1	2	25	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	
3730	6	3	3	55	3	0	1	0	0	1	0	3	0	0	0	0	0	0	0	0	a few mm-flakes plus 6 larger flakes to 48 mm

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes
3731	6	3	3	61	1	1	2	1	0	0	0	2	0	0	0	0	0	0	0	a few mm-flakes plus alrger to approx. 35 mm
3758	4-5b	3	3	1064	23	20	0	9	4	2	0	18	0	0	1	1	0	0	0	many mm- and larger flakes to 53 mm; some pitting on 4 left and 2 right valves
3870		2	3	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 7 larger to 42 mm
3874	2-3a	3	3	16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 3 larger to approx. 40 mm
3891	6	3	3	7270	120	127	14	42	46	6	0	118	0	0	0	0	0	1 whelk fragment unidentified to species	0	very many large flakes/fragments to 65 mm plus very many mm-flakes; light pitting on 5 r-valves, mod on 4 l-valves, hvy on 2-ind;6/?8 worm burrowed;
3941	4-5b	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2 frags/flakes to 31 mm
3968	2-3a	2	2	254	3	6	1	1	4	0	0	4	0	0	0	0	0	0	0	some mm-flakes plus approx. 12 larger to 46 mm
3970	3b	3	2	54	1	1	0	1	1	0	0	2	0	0	0	0	0	0	0	a few mm-flakes plus 2 larger to 58 mm
3976	3b	3	3	72	1	1	4	0	0	0	0	2	0	0	0	0	0	0	0	some mm-flakes plus a few larger to 40 mm
4013	2-3a	3	2	15	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	?1 knife mark; some mm-flakes
4019	3b	2	2	23	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus a few larger to 50 mm
4195	4-5b	2	3	160	6	2	1	3	0	0	0	4	0	0	0	0	0	0	0	some mm-flakes plus larger to 35 mm
4219	2-3a	2	1	23	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
4221	2-3a	2	1	10	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes
4231	2-3a	2	2	13	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	?1 knife mark; a few mm-flakes plus 1 larger to 15 mm
4245	2-3a	2	1	10	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1 flake to 10 mm; hole bored through valve approx. 8.3 mm diameter - cause unknown
4267	2-3a	3	1	32	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	a few mm-flakes and 1 larger to approx. 20 mm
4322	3b	3	3	227	5	2	3	3	2	0	0	5	0	0	0	0	0	2 unidentified fragments	0	many mm-flakes plus 30 larger to 47 mm; some mm-pitting on 1 left valve

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes
4323	3b	3	3	459	5	4	2	1	2	1	0	4	0	0	0	0	0	0	0	mostly large chalky fragments to 55 mm plus many mm-flakes; pitting on inner and outer surfaces of 1 right valve
4437	1	3	2	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2 large frags to 54 mm
4487	2-3a	3	3	169	6	5	0	3	2	1	0	1	0	0	0	0	0	0	0	many mm-flakes and a few larger to 40mm
4546	1	3	3	14	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	many mm-flakes
4626	4-5b	3	3	40	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	many mm-flakes
4628	4-5b	3	2	26	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	a few mm-flakes
4675	4-5b	3	3	60	2	0	1	0	0	0	1	3	0	0	0	0	0	0	0	many mm-flakes plus a few larger to 27 mm; ?1 barnacles - very eroded
4679	3b	3	2	10	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	some mm-flakes
4745	4-5b	3	3	43	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	many mm-flakes plus 6 larger to 44 mm
4750	2-3a	3	3	50	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	?1 knife mark; 3 heavily pitted flakes to 35 mm; hvy pitting on r-valve
4769	2-3a	3	2	29	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	some mm-flakes plus one larger (from valve) to 38 mm
4949	2-3a	3	2	8	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	?1 knife mark
4978	2-3a	3	3	456	4	17	4	3	9	1	0	6	0	0	0	0	0	0	0	?1 worm burrowed; many mm-flakes plus approx. 50 larger to 48 mm
5062	2-3a	3	2	39	0	2	2	0	0	0	0	1	0	0	0	0	0	0	0	many mm-flakes plus one larger to 15 mm
5088	2-3a	3	2	26	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	a few flakes to 20 mm
5139	4-5b	3	3	231	6	7	4	1	3	0	0	5	0	0	0	0	0	0	0	many mm-flakes/fragments plus approx. 20 larger flakes to 47 mm
5140	4-5b	2	2	24	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	?1 knife mark; 4 flakes to 32 mm
5193	4-5b	3	3	146	3	3	0	1	2	0	0	2	0	0	0	1	0	0	0	many mm-flakes plus 10 larger to 41 mm; ?red whelk
5252	4-5b	3	3	38	3	1	0	0	0	0	0	3	0	0	0	0	0	0	0	many mm-flakes plus approx. 20 larger to 40 mm

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes
5281	6	3	2	25	1	0	0	1	0	0	0	1	0	1	0	0	0	0	0	many mm-flakes plus 4 larger (3 burnt) to 37 mm; ?mussel valve frag - ?burnt
5291	6	3	3	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	=1 large fragment
5314	2-3a	3	2	41	1	2	1	0	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes
5319		3	3	14	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	a few flakes to 12 mm
5369	2-3a	3	3	792	16	16	7	2	1	0	0	17	0	0	0	0	0	0	0	many mm-flakes plus many larger to 52 mm
5373	4-5b	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3 frags only to 43 mm
5391	2-3a	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 fragment only
5503	4-5b	3	3	171	5	3	3	2	0	0	0	5	0	0	0	0	0	0	0	many mm-flakes plus approx. 25 larger to 40 mm
5553	4-5b	3	3	115	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	many mm-flakes plus approx. 14 larger to 46 mm
5555	4-5b	2	2	56	1	3	0	0	0	0	0	2	0	0	0	0	0	0	0	many mm-flakes plus 10 larger to 27 mm
5617	3b	3	3	4371	62	44	9	14	6	2	0	57	0	0	0	0	0	0	0	many mm-flakes and many larger to 65 mm
5653	3b	3	3	51	0	0	3	0	0	0	0	2	0	0	0	0	0	0	0	a few mm-flakes; 2 valves fused
5659	4-5b	3	3	4	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	?1 knife mark
5736	4-5b	3	3	45	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	?1 knife mark; some mm-flakes plus 3 larger to 50 mm
5827	4-5b	3	3	27	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	?1 knife mark; some mm-flakes plus 1 larger to 35 mm
5842	4-5b	3	3	53	2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	a few mm-flakes; 1 left valve in two pieces
5849	4-5b	3	3	39	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	a few mm-flakes
5850	4-5b	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few flakes only to 40 mm
5856	4-5b	3	3	18	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 2 larger to 45 mm
5860	4-5b	3	3	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	flakes only to 43 mm

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes
5862	4-5b	3	3	52	2	0	0	0	0	1	0	2	0	0	0	0	0	0	0	a few mm-flakes plus 6 larger to 47 mm; 2 valves pitted one heavily
5864	4-5b	3	3	61	1	3	0	0	0	1	0	1	0	0	0	0	0	0	6 unid fragments	?1 knife mark; some mm-flakes plus 6 larger flakes to 42 mm
5871	6	3	3	485	11	9	10	2	3	1	0	8	0	0	0	0	0	0	0	?2 worms; many mm-flakes plus 24 larger to 53 mm; heavy pitting on 3 valves
5885	4-5b	3	2	61	2	2	0	0	1	0	0	2	0	0	0	0	0	0	0	a few mm-flakes plus 7 larger to 36 mm
5920	4-5b	2	1	32	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	?1 knife mark; a few mm-flakes plus 1 larger to 30 mm
5930	6	3	3	91	3	3	0	2	2	0	0	2	0	0	0	0	0	0	0	many mm-flakes plus a few larger to 39 mm
5957	4-5b	3	2	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	=2 right valve fragments to 47 mm
5966	4-5b	3	3	14	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	?1 knife mark; a few mm-flakes; valve heavily eroded on inner surface
5968	4-5b	3	3	11	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes
5983	3b	3	3	1274	27	21	10	5	9	3	0	15	0	0	0	0	0	0	0	many mm-flakes plus many larger flakes/frags to 60 mm
5988	6	3	3	158	6	3	1	1	0	0	0	2	0	0	0	0	0	0	0	many mm-flakes plus 10 larger flakes/frags to 38 mm
5997	4-5b	3	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	flakes only to 38 mm
6028	3b	3	3	38	2	1	0	0	0	0	0	1	0	0	0	0	0	0	0	some mm-flakes plus 3 larger to 40 mm
6036	4-5b	3	3	40	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	some mm-flakes plus some larger to 20 mm
6039	3b	3	3	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	flakes only to approx. 40 mm
6040	3b	3	3	102	3	0	0	2	0	0	0	1	0	0	0	0	0	1 whelk not identified to species	0	some mm-flakes plus a few larger to 41 mm
6046	6	3	3	110	3	1	1	1	0	0	0	2	0	0	0	0	0	0	0	some mm-flakes plus larger to 45 mm
6080		2	3	36	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes plus 2 larger to 43 mm
6132	3b	3	3	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	some mm-flakes

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes
6136	3b	3	3	302	7	6	0	0	3	0	0	6	0	0	0	0	0	0	0	many mm-flakes plus 7 larger to 39 mm; heavy pitting on 1 left valve
6146	3b	3	3	44	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	many mm-flakes plus 5 larger flakes to 61 mm
6162	3b	2	2	101	1	2	3	0	0	1	0	4	0	0	0	0	0	0	0	a few mm-flakes plus 3 larger flakes to 25 mm
6235	3b	3	3	3929	64	81	19	11	20	6	0	62	0	0	0	0	0	0	0	very many mm-flakes plus many larger to 65 mm; 5 right (2 severe) and 6 left (2 severe) valves with pitting
6255	4-5b	3	3	307	5	5	1	1	0	0	0	0	0	0	0	0	0	0	0	many mm-flakes plus approx. 20 larger to 59 mm
6285	4-5b	3	3	96	1	0	1	0	0	0	0	2	0	0	0	0	0	0	0	many mm-flakes
6300	6iii	3	3	1536	30	47	12	7	13	6	0	46	1	1	1	0	0	0	1 of Cepaea/Arianta sp; 1 frag of Helix sp.	many mm-flakes plus many larger to 55 mm; heavy pitting on some valves
6318	3b	3	3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	flakes only to 42 mm
6382	3b	3	3	76	2	3	1	0	0	1	0	2	0	0	0	0	0	0	0	many mm-flakes plus approx. 15 larger to 44 mm
6384	3b	3	3	28	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	?1 knife mark; many mm-flakes plus approx. 16 larger to 50 mm
6441	3b	3	2	32	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	some mm-flakes plus 4 larger to 44 mm
6446	3b	3	1	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 valve in 2 parts
6450	3b	3	2	10	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	?1 knife mark; many mm-flakes
6465	3b	2	2	170	4	2	0	0	1	1	0	4	0	0	0	0	0	0	0	?1 worm burrowed; some mm-flakes plus 4 larger to 42 mm
6471	6	3	1	102	3	2	1	0	0	1	0	3	0	0	0	1	0	0	1 of Cepaea/Arianta sp.	4 flakes/frags to 33 mm; 2 right valves fused
6472	4-5b	3	3	170	2	2	3	0	0	1	0	5	0	0	0	0	0	0	0	many mm-flakes plus approx. 30 larger to 64 mm
6484	6	3	2	14	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
6485	6	3	2	28	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 4 larger to 42 mm

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes
6487	6	3	2	20	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
6488	4-5b	2	1	42	1	2	0	1	0	0	0	3	0	0	0	0	0	0	0	
6489	6	2	3	100	1	3	1	0	0	0	0	3	0	0	1	0	0	0	0	a few mm-flakes plus approx. 7 larger to 55 mm
6490	4-5b	3	2	200	1	8	3	0	3	1	0	6	0	0	1	0	0	0	0	a few mm-flakes plus 8 larger to 42 mm
6491	4-5b	2	2	266	6	6	2	2	0	0	0	5	0	0	0	0	0	0	0	a few mm-flakes plus 1 larger pitted fragment to 53 mm; ?limpet depression on 1 right valve
6492	2-3a	2	1	87	3	0	1	3	0	0	0	3	0	0	0	0	0	0	0	indet. valve pitted; ?spats on 1 valve
6498	6	2	2	65	1	1	0	1	1	0	0	1	0	0	0	1	0	0	0	a few mm-flakes plus 3 larger to 47 mm
6499	6	3	3	512	22	15	5	4	3	1	0	20	0	0	0	1	0	0	0	many mm-flakes plus approx. 40 larger to 62 mm
6630	3b	3	3	72	1	1	2	0	0	0	0	2	0	0	0	0	0	0	0	a few mm-flakes plus 4 larger to 54 mm; 2-3 mm diameter hole ?bored in left valve (not right through)
6680	6			55	2	3	0	0	1	1	0	4	0	0	0	0	0	0	0	a few mm-flakes plus 1 larger to 31 mm; 1 left valve with hole 'smashed' through - ?trowel damage
6710	3b	3	3	981	17	9	4	8	3	3	0	11	0	0	0	0	0	0	0	many mm-flakes plus many larger to 62 mm; mm-pitting on 1 left valve and a few of the larger flakes/frags
6797	6	2	3	60	2	2	1	0	1	0	0	3	0	0	0	0	0	0	0	a few mm-flakes plus approx. 10 larger to 49 mm
6798	6	3	3	719	31	32	10	9	8	3	3	35	0	0	1	0	0	0	0	many mm-flakes plus approx. 12 larger to 55 mm; barnacles evidenced by residual depressions only - not measurable; hole through 1 left valve - ex. dam
6803	4-5b	3	2	167	5	3	2	3	0	1	0	8	0	0	0	0	0	0	0	some mm-flakes plus approx. 20 larger to 45 mm
6885	4-5b	3	2	139	4	3	1	1	1	1	0	5	0	0	0	0	0	0	0	some mm-flakes plus 8 larger to 39 mm; one left valve and one larger frag ?burnt; indet. valve pitted
6886	4-5b	3	2	30	2	2	0	1	0	0	0	2	0	0	0	0	0	0	0	a few mm-flakes; 2 mm perforation through 1 left valve

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes
6888	4-5b	3	3	649	30	23	12	8	1	0	0	34	0	0	0	0	0	0	0	many mm-flakes and some larger to 54 mm; some left valves and 1 right valve very elongate
6952	3b	2	2	70	2	1	0	1	1	0	0	2	0	0	0	0	0	0	0	
6961	6	2	2	36	0	3	0	0	1	0	0	2	0	0	0	0	0	0	0	a few mm-flakes
7054	6	3	2	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 flake to 12 mm
7077	6	2	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 fragment only to 38 mm
7123	6iii	3	2	6	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes
7150	4-5b	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes only to 25 mm
7151	4-5b	3	3	14	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	a few mm-flakes
7153	3b	3	3	13	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2 flakes to 54 mm; 1 flake with eroded barnacles (not measurable)
7212	6	3	3	7	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes plus a few larger to 20 mm
7220	3b	3	3	41	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	many mm-flakes plus a few larger to 30 mm
7280	6	2	2	13	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	?1 worm burrowed; 2 mm-ish perforations in valve cause indet
7388	3b	3	3	95	1	1	2	1	0	0	0	2	0	0	0	0	0	0	0	many mm-flakes plus 10 larger to 43 mm
7406	6	2	2	53	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	?1 trace of barnacles; a few mm-flakes
7417	3b	3	3	40	1	1	0	0	0	1	0	1	0	0	0	0	0	0	0	?1 knife mark; some mm-flakes plus a few larger to 37 mm
7453	3b	3	3	1604	42	39	5	16	16	17	0	41	0	0	0	0	0	0	0	many mm-flakes plus many larger to 62 mm; all worm burrowing on external surfaces; heavy pitting on some valves
7505	6	1	1	22	1	1	0	0	1	0	0	2	0	0	0	0	0	0	0	
7506	6	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 frag. to 29 mm



Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes
7511	3b	3	2	12	0	2	1	0	0	0	0	2	0	0	0	0	0	0	0	
7543	3b	3	2	73	3	2	1	1	1	1	0	3	0	0	0	0	0	0	0	some mm-flakes
7546	3b	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 frag to 25 mm
7551	4-5b	1	2	16	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	
7553		1	1	68	2	3	2	2	1	0	0	2	0	0	0	0	0	0	0	
7688	4-5b	2	1	72	2	1	1	1	1	0	0	2	0	0	0	0	0	0	0	
7788	3b	1	1	16	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
7809	3b	2	2	37	0	1	0	0	1	1	0	1	0	0	0	0	0	0	0	some mm-flakes plus 5 larger to 45 mm; some of flakes show worm burrowing
7817	6iii	3	3	25	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	some mm-flakes; ?1 knife mark; ?1 worm burrowed
7902	2-3a	1	1	32	2	0	0	1	0	0	0	2	0	0	0	0	0	0	0	
7903	6	3	2	34	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes
7926	4-5b	2	2	17	1	2	0	0	0	0	0	2	0	0	0	0	0	0	0	some mm-flakes
8090	4-5b	2	2	44	1	1	1	1	0	0	0	2	0	0	0	0	0	0	0	a few mm-flakes
8092	4-5b	3	3	26	0	1	1	0	0	1	0	1	0	0	0	0	0	0	0	some mm-flakes plus 2 larger to 40 mm; ?1 valve worm burrowed
8108	4-5b	3	3	34	2	1	1	0	0	0	0	2	0	0	0	0	0	0	0	some mm-flakes plus 4 larger to 32 mm
8146	3b	3	3	6	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	
8149	6	2	2	24	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	
8153	4-5b			131	4	2	2	1	1	0	0	3	0	0	0	0	0	0	0	a few mm-flakes plus 4 larger to 30 mm; 1 right valve ?burnt
8155	2-3a	3	2	7	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	?1 knife mark
8189	4-5b			11	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes plus 2 larger to 41 mm

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes
8192	4-5b	2	2	45	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	?1 knife mark; some mm-flakes plus a few larger to 22 mm
8200	3b	3	2	6	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes
8237	4-5b	2	3	64	1	1	2	0	0	0	0	3	0	0	0	0	0	0	0	many mm-flakes plus 8 larger to 40 mm
8326	2-3a	3	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 1 larger to 45 mm
8348	4-5b	3	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus a few larger to 39 mm only
8461	6	0	0	53	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	?red whelk - two areas of surface flattened with approx. 3.5 mm diameter holes through - ?cause
8653	4-5b	3	3	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	many mm-flakes plus 5 larger to 46 mm
8657	4-5b	2	1		0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	
8660	4-5b	3	3	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	some mm-flakes plus a few larger to 46 mm only
8675	6	2	2	11	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	?1 worm burrowed
8680	4-5b	3	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus 3 larger to 45 mm
8708	2-3a	3	3	14	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes
8724	4-5b	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few flakes to 37 mm only - some pitted/perforated
8734	4-5b	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus a few larger to 10 mm only
8749	4-5b	2	2	18	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1 fragment to 40 mm; fragment of mussel shell fused to left valve
8756	2-3a	0	0	18	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
8761	4-5b	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	many mm-flakes plus 8 larger to 15 mm only
8787	4-5b	3	3	91	2	2	0	0	0	0	0	3	0	0	0	0	0	0	0	many mm-flakes plus approx. 20 larger to 46 mm
8794	2-3a	2	3	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2 frags only to 63 mm

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes	
8852	2-3a	2	2	35	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1 fragment to 38 mm
9938	2-3a	1	3	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 fragment to 58 mm
10036		1	1	68	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	
10048	3b	3	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus approx. 10 larger to 38 mm
10064	3b	2	2	23	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	a few mm-flakes plus 1 larger to 39 mm
10105	4-5b	3	2	40	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	a few mm-flakes
10176	4-5b	2	2	68	2	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	2 large fragments to 52 mm
10179	3b	3	2	88	3	1	2	2	0	1	0	4	0	0	0	0	0	0	0	0	many mm-flakes
10182		2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 fragment only to 23 mm
10296	6	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes plus a few larger to 33 mm
10333	6	2	2	101	1	2	1	1	1	1	0	3	0	0	0	0	0	0	0	0	a few mm-flakes plus 1 larger to 54 mm; worm burrowing on large fragment; pitting on indet valve
10343	4-5b	2	2	42	1	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	a few mm-flakes plus 1 larger to 63 mm
10399	3b	3	3	27	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	many mm-flakes
10665	4-5b	3	3	13	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	some mm-flakes
10700	2-3a	2	2	55	1	1	1	1	0	0	0	3	0	0	0	0	0	0	0	0	some mm-flakes plus 2 larger fragment to 62 mm
10771	6	3	2	5	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	
10808	4-5b	1	1	97	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	a few frags/flakes to 8 mm
10834	4-5b	2	2	21	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 fragment to 40 mm
10851	3b	3	3	106	7	2	8	4	2	1	0	3	0	0	0	0	0	0	0	0	many frags/flakes to 20 mm; worm burrowing on inner surface

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes
10908	2-3a	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	
10969	2-3a	1	2	22	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	
11039	4-5b	2	1	56	1	2	1	1	2	0	0	0	0	0	0	0	0	0	0	
11074	3b	2	1	12	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	
11379	4-5b	2	2	20	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	many mm-frags/flakes (to 3 mm)
11436	3b	2	1	13	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	
11442	4-5b	3	1	13	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
11461	4-5b	1	1	30	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	
11552	4-5b	2	0	29	1	0	0	1	0	1	1	1	0	0	0	0	0	0	0	barnacles eroded
11631	3b	3	3	92	3	1	2	0	0	0	0	2	0	0	0	0	0	0	0	many flakes/fragments to 10 mm; 1 l-valve with hole cause indet
11637		3	1	11	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	plus 1 frag
11663	3b	3	3	72	2	2	0	0	0	0	0	1	0	0	0	0	0	0	0	many small flakes/fragments to 20 mm
11697	3b	3	3	192	3	0	0	3	0	1	0	0	0	0	0	0	0	0	0	many flakes/fragments to 30 mm; 1 left valve heavily pitted
11699	3b	3	1	63	1	2	1	0	1	0	0	1	0	0	0	0	0	0	0	1 of <i>Cepaea/Arianta</i> sp.
11759	3b	2	2	67	2	0	0	2	0	1	0	0	0	0	0	0	0	0	0	pitting on 1 valve - 5 holes only 1 completely through
11764	3b	3	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	flakes/fragments only to 33 mm
11766	3b	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	frags of unid sp.
11781	3b	3	3	1848	29	32	4	10	10	2	0	15	0	0	0	0	0	0	0	many mm-flakes plus many larger to 56 mm; pitting on several valves - occasionally very severe
11835		2	2	60	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	a few mm-flakes; pitting on inner and outer surfaces

Cont	Ph Grp	E	F	Wt	N L	N R	N I	N L meas	N R meas	N worm	N barn	N kn	N cockle	N mus	N wh	N red wh	N peri	Other marine	Non-marine	Notes	
11837	2-3a	3	2	25	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	?worm burrowed
11893	3b	2	2	35	0	2	0	0	1	1	0	1	0	0	0	0	0	0	0	0	?1 knife mark; ?1worm burrowed; a few mm-flakes plus a few larger to 15 mm
11982		2	3	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	some fragments (6 to 8) only to 53 mm
12057	4-5b	3	3	328	5	4	0	2	1	1	0	2	0	0	0	0	0	0	0	0	many mm-flakes but mostly larger to 55 mm; light pitting on 1 right valve
12076	4-5b	3	3	11	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	a few mm-flakes
12191	4-5b	3	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a few mm-flakes
13386		3	3	206	7	3	0	3	1	1	0	5	0	0	0	0	0	0	0	0	?1 worm burrowed; a few mm-flakes plus 6 larger to 38 mm
13848	4-5b	3	3	53	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	a few mm-flakes plus a few larger to 15 mm; pitting on 1 valve

*Table F. Summary information for hand collected shell by Phase group.*

**Key:** Av. E = Average erosion score; Av. F = Average fragmentation score; Wt = weight (in grammes); NL= Number of left oyster valves; NR = Number of right oyster valves; NI = Number of indeterminate side oyster valves; NL meas. = Number of left oyster valves for which some measurements were possible; % L meas = percentage of left oyster valves for which some measurements were possible; NR meas = Number of right oyster valves for which some measurements were possible; % R meas = percentage of right oyster valves for which some measurements were possible; worm = Number of oyster valves with damage from polychaet worm burrowing; % worm = percentage of oyster valves with damage from polychaet worm burrowing; barnacle = Number of oyster valves encrusted by barnacles; knife = Number of oyster valves showing ‘knife’ damage; % knife = percentage of oyster valves showing ‘knife’ damage; cockle = Number of cockle valves; mussel = Minimum number of individuals for mussels; whelk. = Number of common whelks; red whelk = Number of red whelks; periwinkle = Number of periwinkles.

Phase group	No. of Contexts	Av. E	Av. F	Wt	NL	NR	NI	NL meas	% L meas	NR meas	% R meas	worm	% worm	barnacle	knife	%knife	cockle	mussel	whelk	red whelk	periwinkle
7+ or too broadly phased for classification	27	2.7	2.6	4812	92	97	33	53	57.6	40	41.2	4	1.8	0	104	46.8	0	0	0	0	0
1	3	3.0	2.7	40	2	0	0	1	50.0	0	n/a	0	0.0	0	2	100.0	0	0	0	0	0
2-3a	43	2.4	2.1	2554	48	63	20	19	39.6	20	31.7	4	3.1	0	58	44.3	0	2	1	0	0
3b	67	2.7	2.5	18033	340	288	138	99	29.1	84	29.2	46	6.0	1	278	36.3	0	0	0	0	0
4-5b	119	2.6	2.5	7472	183	151	70	53	29.0	24	15.9	17	4.2	3	182	45.0	0	1	3	2	1
6	57	2.6	2.4	11126	238	235	55	72	30.3	76	32.3	19	3.6	4	240	45.5	0	1	2	4	0
6iii	20	3.0	2.8	2121	42	62	46	13	31.0	18	29.0	8	5.3	0	55	36.7	1	1	1	1	0
<b>Totals/ Averages (as appropriate)</b>	<b>336</b>	<b>2.7</b>	<b>2.5</b>	<b>46158</b>	<b>945</b>	<b>896</b>	<b>362</b>	<b>310</b>	<b>32.8</b>	<b>262</b>	<b>29.2</b>	<b>98</b>	<b>4.4</b>	<b>8</b>	<b>919</b>	<b>41.7</b>	<b>1</b>	<b>5</b>	<b>7</b>	<b>7</b>	<b>1</b>

*Table G. Number of measurements of oyster valves possible by Phase group and measurement.*

**Key:** LVH = left valve height; LVL = left valve length; LHW = left hinge width; LHL = left hinge length; LAS = left anterior scar length; LASH = left anterior scar height; RVH = right valve height; RVL = right valve length; RHW = right hinge width; RHL = right hinge length; RAS = right anterior scar length; RASH = right anterior scar height.

Phase group	Total no. of measurements	LVH	LVL	LHW	LHL	LAS	LASH	RVH	RVL	RHW	RHL	RAS	RASH
7+ or too broadly phased for classification	<b>128</b>	2	2	0	0	37	31	1	1	0	0	37	17
1	<b>1</b>	0	0	0	0	1	0	0	0	0	0	0	0
2-3a	<b>67</b>	2	0	2	2	18	18	0	0	0	0	17	8
3b	<b>224</b>	6	7	3	5	67	43	0	0	0	0	62	31
4-5b	<b>123</b>	5	6	4	4	38	32	3	3	0	0	21	7
6	<b>193</b>	2	1	0	1	55	39	1	1	0	0	53	40
6iii	<b>45</b>	0	0	0	0	13	6	0	0	0	0	16	10

Table H. Summary information for oyster valve measurements by Phase group.

**Key:** all measurements in mm. LVH = left valve height; LVL = left valve length; LHW = left hinge width; LHL = left hinge length; LAS = left anterior scar length; LASH = left anterior scar height; RVH = right valve height; RVL = right valve length; RHW = right hinge width; RHL = right hinge length; RAS = right anterior scar length; RASH = right anterior scar height.

Phase group		LVH	LVL	LHW	LHL	LAS	LASH	RVH	RVL	RAS	RASH
7+ or too broadly phased for classification	Maximum	69.5	51.4	-	-	24.3	41.9	65	53.7	24.1	40.6
7+ or too broadly phased for classification	Average	65.3	49.9	-	-	19.0	36.1	65.0	53.7	19.0	34.3
7+ or too broadly phased for classification	Minimum	61.1	48.4	-	-	15.1	30.9	65	53.7	12.1	27.3
1	Maximum	-	-	-	-	20.2	-	-	-	-	-
1	Average	-	-	-	-	20.2	-	-	-	-	-
1	Minimum	-	-	-	-	20.2	-	-	-	-	-
2-3a	Maximum	70.3	-	8.4	12	23.8	44.8	-	-	25	45.6
2-3a	Average	65.0	-	6.7	8.5	19.1	34.1	-	-	17.9	34.9
2-3a	Minimum	59.7	-	4.9	4.9	14.1	24.5	-	-	15.9	28.8
3b	Maximum	91.9	82.6	15	12.4	29.6	47.5	-	-	41.2	59.8
3b	Average	90.3	66.9	15.0	11.4	21.1	38.0	-	-	20.9	39.2
3b	Minimum	55.8	59.4	4.8	7.2	14.4	26.6	-	-	13.7	31.1
4-5b	Maximum	89.1	76.4	12.8	14.3	26.3	51.6	62	62	24.4	44.7
4-5b	Average	68.5	59.5	7.4	8.5	19.2	36.6	59.9	56.4	18.7	33.6
4-5b	Minimum	57.1	51.7	4.8	5.8	13.5	29	57.3	52	12.3	31.5
6	Maximum	68	60.9	-	16.8	28.3	46.6	60.2	48.8	29.1	44.3
6	Average	58.4	-	-	16.8	19.9	37.8	60.2	48.8	19.1	35.3
6	Minimum	58.4	60.9	-	16.8	12.9	28.9	60.2	48.8	12.9	23.9
6iii	Maximum	-	-	-	-	22.8	40.3	-	-	23.5	41.7
6iii	Average	-	-	-	-	18.1	35.6	-	-	18.4	36.6
6iii	Minimum	-	-	-	-	13.3	31	-	-	14.1	31.7

Fig 1. Average values of oyster valve measurements by Phase group.

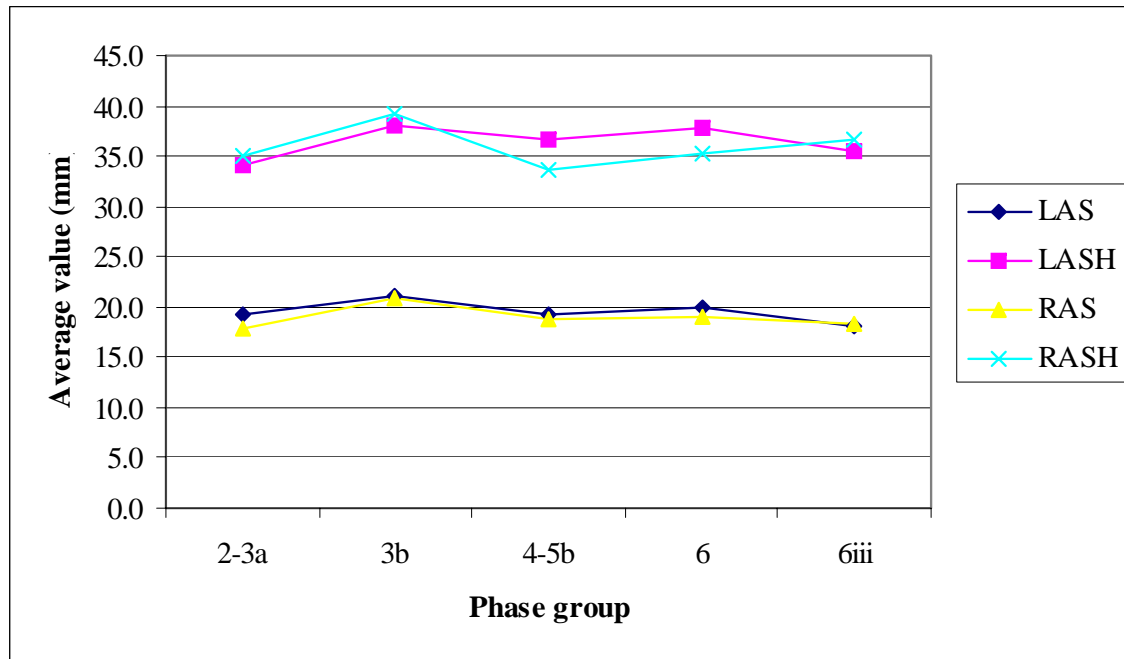




Fig 2. Average weight of hand collected shell per context by Phase group and Context type group.

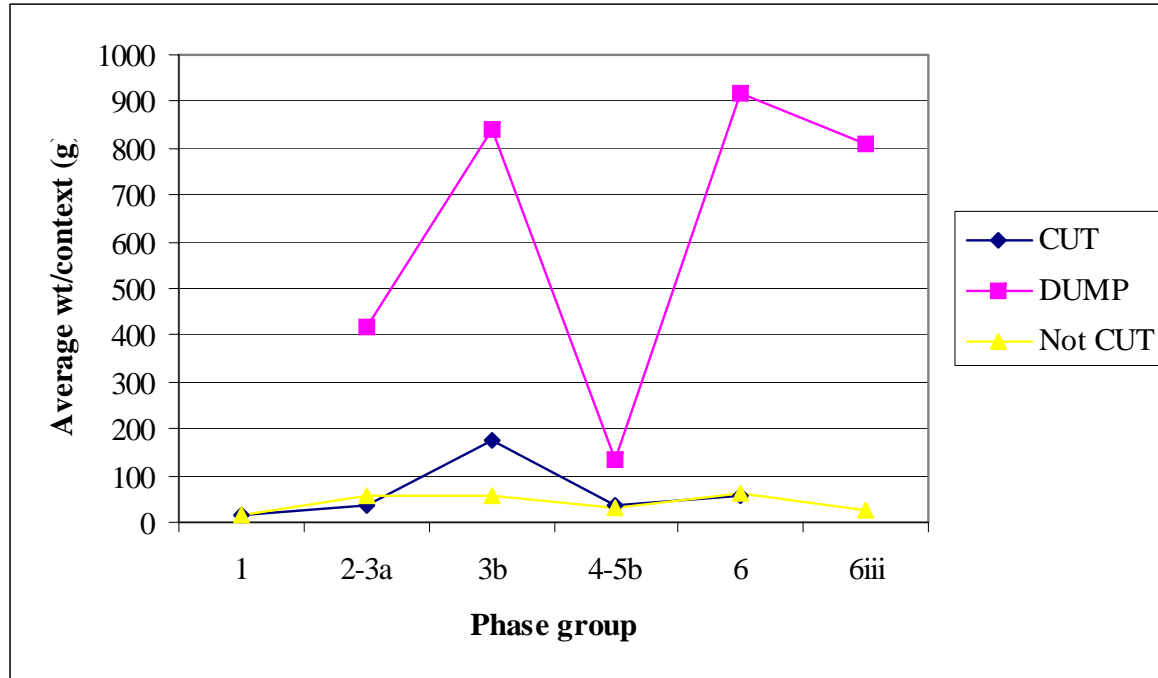


Fig 3. Weight of hand collected shell by Phase group and Context type group.

