

**Channel Tunnel Rail Link
London and Continental Railways
Oxford Wessex Archaeology Joint Venture**

**The land Mollusca from Northumberland Bottom,
Southfleet, Kent**

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1 INTRODUCTION

Molluscan assemblages were recovered during fieldwork at West of Tollgate (ARC TGW97), West of Northumberland Bottom (ARC WNB98), the Area 330 Watching Brief (ARC 33098) and Hazells Road Diversion (ARC HRD99). All assemblages were examined during the assessment stage by Alan Pipe (MoLSS) in order to determine their potential for providing data on the local environment for the various periods represented. Samples taken specifically for snails derive from a middle to late Iron Age boundary ditch and a sequence of samples from colluvial deposits exposed during the evaluation phase (ARC TGW97). It was however noted in the assessment that the flots processed for charred remains also contained shells. These assemblages were from samples much larger than the standard molluscan samples and as a result the shells appear to have been concentrated in the flots in larger numbers. In total 118 samples were assessed for Mollusca.

The site is located on chalk geology and subsequently ground conditions were not conducive for pollen preservation. It was therefore decided molluscan assemblages from well dated features which contained significant quantities of shell, apart from the burrowing species *Cecilioides acicula*, would be investigated in more detail in order to provide some level of direct data regarding the local environment of the site. *C. acicula* was excluded because it burrows deeply and provides no useful information on conditions as a sediment or soil formed. It can be extremely numerous in samples and its inclusion in the total tends to obscure the results from the other species. The other burrowing species listed, *Pomatias elegans*, burrows just below the surface of loose soil or leaf litter, so does give useful palaeoecological information.

Three groups of samples, comprising a total of 41 assemblages, were re-examined. These include five samples from a pedo-sedimentary sequence infilling the Wrotham Road dry valley (ARC TGW97), 14 samples, taken at 10cm intervals, through the fills of a middle to late Iron Age ditch 332 (ARC WNB98) and 22 bulk samples from well-dated ditch and pit contexts across Zone 3 (ARC WNB98, ARC 33098). No assemblages were examined from the Hazells Road Diversion (ARC HRD99) due to poor molluscan preservation. The results are presented in Tables 1 to 4 at the end of this report.

2 METHOD

All samples were processed during the assessment stage at the Museum of London. In each case, the soil was processed using a modified Siraf-type tank fitted with 1.0mm and 0.25mm flexible nylon meshes to retain the residue and flot fractions respectively. The flot and residue

fractions were air-dried in a warm drying cabinet and then visually sorted for mollusc shell to 1mm.

The assemblages were not suitable for detailed analysis in terms of relative abundance and diversity since identifiable fragments were only picked from the >1.0mm size grade during the processing stage. Shells from the 1.0-0.5mm grade were not picked out and as a result the assemblages have a bias towards whole, adult, and shells of larger species. Identifiable apical fragments, juveniles and the smaller species that are usually retained in the 0.5-1.0mm fraction were generally absent. On the whole recovery of shell appeared to be better in some of the unsorted flots from the larger bulk samples which had been floated onto 0.25mm mesh. Despite these problems however, some broad comments can be made with regard to the species present and their habitat preferences. The selected assemblages were scanned under a binocular microscope at x10 and x20 magnification. The species present in each assemblage were identified and whole shells and apical fragments counted. Nomenclature follows Kerney (1999). Habitat groupings follow the scheme of Evans (1972, 1984).

3 RESULTS

3.1 Middle Iron Age features

Two contexts dated to the middle Iron Age from the western end of Zone 3 were examined, ditch fill 269 (ARC WNB98 Area A) and pit fill 327 (ARC 33098). Molluscan remains were quite low in these samples with the total identifiable individuals numbering 24 and 46 respectively. The assemblage from pit fill 325 was dominated by the burrowing species *P. elegans* suggesting ground disturbance in the vicinity. Lesser quantities of shade-demanding species *Discus rotundatus*, *Aegopinella nitidula*, *Aegopinella pura*, *Oxychilus cellarius* and the catholic species *Trichia hispida* were also noted. Open-country species were rare. Ditch fill 269 contrasted slightly in that it contained a mixed assemblage with shade-loving species joined by open-country species *Truncatellina cylindrica* and *Vallonia* sp., particularly *V. costata*.

3.2 Middle- late Iron Age features

14 samples taken at 10cm intervals through the profile of a middle to late Iron Age boundary ditch 332 (ARC WNB98 Area A) were examined. Given the problems with selective recovery of shell, and the general low numbers in the assemblages from the column samples, two larger bulk samples were also investigated from the same profile, one from the primary fill 362 and one from the upper fill 296 to provide supporting data.

In the basal fill 362, at a depth of 1.30-1.40m, *P. elegans* was numerous. The remainder of the assemblage comprised mainly shade-demanding taxa, *D. rotundatus* and *A. nitidula* with lesser quantities of Clausiliidae. Significant quantities of *Carychium tridentatum* were also noted in the bulk sample from the primary fill, along with other zonitids, *A. pura* and *O. cellarius*. Open-country species were generally few in number, although *V. costata* was noted in the bulk sample. Some elements of the assemblage may derive from soil falling into the ditch when it was cut and may thus reflect conditions prevailing immediately prior to construction. Other elements may reflect very local conditions prevailing in the base of the feature during the initial stages of infilling. *P. elegans* is often abundant in areas of ground disturbance where it burrows into the loose soil and is often associated with woodland or scrub clearance. It could also have been attracted to the unstable nature of the feature edges. The shade-demanding elements of the assemblages are consistent with open woodland or scrub conditions. *V. costata*, although common in open country assemblages, does occur in small numbers in shaded habitats (Evans 1972). It is subsequently considered one of the first species to colonise recently cleared areas of ground. Between 1.30 and 1.20m shells were very sparse either due to poor recovery, or possibly because surfaces in the primary fill were unstable, dry and unvegetated, producing a hostile environment for snails.

Between 1.20m and 0.80m (fill 258) the assemblages were dominated by shade-demanding taxa. *P. elegans* was noted as only a few worn apices which may indicate fewer disturbances within the ditch perhaps as the edges became stable and vegetated. Catholic species also appeared at this level including *T. hispida*, and *Cepaea* sp. *V. costata* continued in small quantities, otherwise open-country species were absent. The rapid colonization of the ditch by shade-demanding taxa suggests refugia were present in the vicinity from which shade-loving species could colonize. The general paucity of open-country species apart from *V. costata* suggests any clearance associated for construction of the feature may have been localized or temporary, at least in immediate surroundings.

Above 0.80m (fills 256 and 249) *P. elegans* again became more abundant possibly indicating renewed disturbance in the vicinity. Above 0.40m shade-loving species are still present, particularly *C. tridentatum*, but open country species are more important with *V. costata* joined by *V. excentrica* and *Helicella itala*. In the bulk sample open-country species comprised approximately one third of the assemblage. The obligatory xerophile *T. cylindrica* is also present along with *Pupilla muscorum* and *Vertigo pygmaea*. These changes in the upper fills of the ditch may be associated with Roman activity on the site

3.3 Late Iron Age-early Roman features.

Two contexts dated from the late Iron Age to early Roman period were examined from Area B, ditch fill 526, and pit fill 565. The assemblages were mixed although shade-demanding

species predominated, especially *A. pura* and other zonitids, with lesser quantities of *D. rotundatus*, *Ena obscura*, *Acanthinula aculeata* and Clausiliidae. Open-country species, including xerophiles *T. cylindrica* and *V. excentrica*, however, made up an important component comprising about one third of the assemblages.

3.4 Roman features

Ten contexts were examined from features dated to the Roman period on Area C. The assemblages were all very similar, comprising predominantly of open country species. *Vallonia* sp. made up to about half the numbers, with *V. excentrica* outnumbering *V. costata* in the pit fills, and *vice versa* in the ditches. Other significant species include *P. muscorum*, *H. itala* with *V. pygmaea* and *T. cylindrica* in lesser quantities. Shade-loving species, including *A. nitidula*, *D. rotundatus* and the rupestral species *Lauria cylindrica*, were present but more numerous in ditch contexts making up to one fifth of the assemblages. Catholic species tended to be an insignificant component although slightly more abundant in the ditches. The difference in the assemblages from ditches and pits may be a result of localised micro-environments within the features. The ditches are likely to have been more humid and may have contained taller vegetation. The presence of the open country species in numbers in both pits and ditches however suggests the presence of established dry open-country in the vicinity, either pasture or arable habitats. *H. itala* in particular does not tolerate rank grassland, and *V. excentrica* often proliferates in grassland where the sward is kept short by grazing. *T. cylindrica* is an obligatory xerophile that does not tolerate shade at all, usually occurring in very dry exposed grassland. Although rare in modern assemblages it is likely this species distribution was previously more widespread (Evans 1972: 140). The ecological requirements of *P. muscorum* are not always clear, although it is often abundant in areas of dry bare ground and may be present in intensively grazed grassland, or arable environments (Evans 1972).

3.5 Colluvial sequence (ARC TGW98)

It is assumed assemblages contained within colluvium and buried soils provide a broader picture of the general environment of a site when compared to the local micro-environments prevailing within archaeological features. For this reason, although no dating evidence was available for these deposits and shell preservation was generally poor, the pedo-sedimentary sequence infilling the Wrotham Road dry valley was examined. It was also considered useful comparative data for the dry valley assemblages investigated at White horse Stone. No molluscs were present in the basal deposits interpreted as a possible prehistoric palaeosol. In the overlying colluvial deposits, numbers of individuals were generally very low. The assemblages consisted of entirely open-country fauna. Species identified include *H. itala*, *Candidula gigaxii*, *V. excentrica*, *Vallonia pulchella*, *V. costata*, *P. muscorum* and *Cochlicopa*

spp. The presence of *C. gigaxii* would perhaps suggest a Roman or later date for the deposits (Kerney 1999:180). This is in agreement with the assemblages from the Roman features, again suggesting the presence of established dry open country in the catchment.

4 DISCUSSION

The assemblages examined from the excavated features at Northumberland Bottom are clearly biased towards larger species and whole shells. Smaller shells (<1.0mm), such as *Carychium* sp. and *Vertigo* sp., along with broken apical fragments are under-represented. This is most obvious when comparing the bulk samples and smaller column samples from ditch 332. This bias however encompasses both shade-demanding and open-country groups and has been considered in the interpretation of the assemblages. In addition to this some elements of the assemblages clearly reflect very localized conditions prevailing within the base of features. This is demonstrated by comparing the Roman ditch and pit fills on area C. Despite these problems some broad indication of the prevailing environmental conditions has been obtained, although it is not possible to comment on spatial variation given the distribution of features for each period is patchy.

Although activity is recorded during the Neolithic and Bronze Ages at Northumberland Bottom in the form of isolated inhumations and cremations, no molluscan assemblages were available for examination. It is however generally accepted that most of south-east England was wooded prior to 4000BC (Bell 1983, Ellis 1985, Evans 1972, Thorley 1981, Kerney et al 1964, Thomas 1982). The extent and duration of clearance in Kent is not clear. Current research suggests clearance on the chalklands of the south and south-east was predominantly a late Bronze Age phenomenon (Wilkinson 2003:730). Locally however there may have been much variation with some areas subject to extensive and permanent clearance, and other areas where cycles of clearance and woodland/scrub regeneration occurred (Thomas 1982, Preece and Bridgland 1998, Kerney et al 1964, Wilkinson 2003). At the CTRL site of White Horse Stone, west of the River Medway, there is evidence of localised clearance and scrub/woodland regeneration during the Neolithic and Bronze Age. Assemblages suggestive of larger tracts of established dry open ground are not in evidence until the early Iron Age at this site, coincident with agricultural settlement activity and the onset of extensive colluviation in the base of the valley (Stafford 2006, Giorgi and Stafford 2006).

At Northumberland Bottom the middle to late Iron Age features are mainly located in the western and central areas of Zone 3. Their molluscan assemblages comprise predominately shade-demanding taxa with a small open-country element. There is perhaps a hint that areas of fairly dry open ground were present during, or prior, to the middle Iron Age activity from ditch fill 269, where the open country xerophiles *T. cylindrica* and *V. excentrica*

were recorded. The assemblages from the boundary ditch 332 were particularly informative. The molluscs from the lower fills argue for open woodland or scrub cover, and the rapid colonization by shade-demanding taxa suggests any clearance associated with the construction of the feature may have been short lived. Similar refugia for these species must have been present close by from which the species could spread. There is no real evidence for large established tracts of short grassland or arable in the vicinity of this feature during the initial infilling. If this was the case one would perhaps expect a more significant open-country element alongside the shade-demanding species. Such mixed assemblages do not occur until later in the sequence. That is not to say however areas of open ground did not exist in other parts of the site during this period.

The assemblages from the upper fills of ditch 332, and the late Iron Age to early Roman features on Area B, appear to demonstrate a trend to more open conditions containing mixed assemblages of open-country and shade-demanding taxa. It is, however, the Roman features on Area C, at the eastern end of Zone 3 that contain quite different assemblages. They are dominated by open-country species suggesting the presence of established dry open conditions, either open pasture or arable habitats in the vicinity. Indeed, the very presence of colluvial deposits in the Wrotham Road dry valley does suggest cultivated land somewhere in the catchment from at least the Roman period onwards. The continued presence of shade-demanding taxa within the Roman ditch fills, particularly rupestral species *L. cylindrica* and *Clausilia bidentata* may suggest the presence of tall vegetation. perhaps even a hedge, where relict faunas may have persisted.

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Table 1: Land Mollusca from ARC WNB98

Area	A	A	A	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C
Phase	MIA	M-LIA	M-LIA	LIA-ER	LIA-ER	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB
Feature	ditch	ditch	ditch	ditch	pit	ditch	ditch	ditch	ditch	ditch	ditch	ditch	pit	pit	pit	pit	pit	pit
Cut	271	332	332	536	564	225	396	396	1062	1052	1049	1136	1035	1035	1024	1025	1045	1010
Context	269	296	362	526	565	381	397	421	1063	1051	1048	1279	1043	1036	1032	1026	1046	1009
Sample	34	36	37	59	73	3	17	18	56	54	55	70	26	14	12	8	27	7
Taxa	Habitat																	
<i>Pomatias elegans</i> (Müller)	c	-	47	2	-	2	-	18	-	17	4	10	-	-	4	2	12	-
<i>Carychium tridentatum</i> (Risso)	s	1	183	46	4	10	-	29	1	1	2	7	-	11	10	2	16	-
<i>Lymnaea truncatula</i> (Müller)	fsl	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
<i>Cochlicopa</i> sp.	c	-	13	-	-	-	-	20	-	1	4	12	-	6	10	2	2	-
<i>Truncatellina cylindrica</i> (Férussac)	o	2	6	-	1	-	-	1	-	6	16	16	1	23	6	4	8	1
<i>Vertigo pygmaea</i> (Draparnaud)	o	-	20	1	-	-	-	4	-	3	1	4	-	4	-	1	5	1
<i>Pupilla muscorum</i> (Linné)	o	-	49	-	-	-	-	5	-	11	29	25	4	99	54	11	55	18
<i>Lauria cylindrica</i> (da Costa)	s	-	5	-	-	-	-	5	-	17	15	7	-	-	-	-	-	-
<i>Vallonia costata</i> (Müller)	o	13	119	31	2	33	-	32	5	127	100	175	15	187	53	54	54	10
<i>Vallonia excentrica</i> (Sterki)	o	2	38	-	2	2	1	9	-	31	27	28	4	302	109	65	351	9
<i>Acanthinula aculeata</i> (Müller)	s	-	34	2	-	3	-	8	-	2	2	-	-	1	-	1	2	-
<i>Ena obscura</i> (Müller)	s	-	-	1	-	1	-	3	-	-	3	-	-	-	-	-	-	-
<i>Punctum pygmaea</i> (Draparnaud)	c	-	10	-	-	-	-	6	1	6	1	8	1	1	-	-	-	-
<i>Discus rotundatus</i> (Müller)	s	2	26	57	2	15	-	30	5	3	57	6	-	5	2	1	5	1
<i>Vitrina pellucida</i> (Müller)	c	-	-	2	-	-	-	-	-	-	2	-	-	-	-	-	-	-
<i>Vitrea</i> sp.	s	-	24	13	1	10	-	21	2	2	3	14	-	2	2	12	2	1
<i>Aegopinella pura</i> (Alder)	s	-	42	5	-	20	-	11	1	2	1	1	-	2	-	8	4	-
<i>Aegopinella nitidula</i> (Draparnaud)	s	1	46	13	3	9	-	49	2	27	36	24	-	3	-	4	4	-
<i>Oxychilus cellarius</i> (Müller)	s	-	10	27	8	2	-	14	1	2	8	2	-	5	-	7	1	1
Clausiliidae	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
<i>Cochlodina laminata</i> (Montagu)	s	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-
<i>Clausilia bidentata</i> (Ström)	s	-	20	1	-	1	-	2	-	2	1	2	-	-	-	-	-	-
Helicidae indet.	o. c	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-

Area	A	A	A	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C
Phase	MIA	M-LIA	M-LIA	LIA-ER	LIA-ER	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB
Feature	ditch	ditch	ditch	ditch	pit	ditch	ditch	ditch	ditch	ditch	ditch	ditch	pit	pit	pit	pit	pit	pit
Cut	271	332	332	536	564	225	396	396	1062	1052	1049	1136	1035	1035	1024	1025	1045	1010
Context	269	296	362	526	565	381	397	421	1063	1051	1048	1279	1043	1036	1032	1026	1046	1009
Sample	34	36	37	59	73	3	17	18	56	54	55	70	26	14	12	8	27	7
Taxa	Habitat																	
<i>Candidula intersecta</i> (Poiret)	o**	-	1	-	-	-	-	-	-	-	-	-	1	2	-	-	2	1
<i>Candidula gigaxii</i> (Pfeiffer)	o**	-	3	-	-	-	2	-	-	1	-	2	-	12	6	8	4	5
<i>Helicella itala</i> (Linné)	o	-	10	1	-	-	-	8	-	6	3	4	2	20	43	8	53	3
<i>Monacha cartusiana</i> (Müller)	o**	-	-	1	-	-	-	-	-	1	-	-	-	6	3	-	4	-
<i>Monacha cantiana</i> (Montagu)	c**	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	3	-
<i>Trichia hispida</i> (Linné)	c	1	1	5	1	4	3	22	1	1	9	-	-	3	-	-	3	1
<i>Arianta arbustorum</i> (Linné)	c	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cepaea/Arianta</i> sp.	c	-	1	-	-	-	-	3	-	-	1	-	-	-	-	2	-	-
<i>Cepaea</i> sp.	c	-	+	-	-	-	-	-	-	-	1	2	-	-	-	-	-	-
<i>Cepaea nemoralis</i> (Linné)	c	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-
<i>Helix aspersa</i> (Müller)	c**	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
Minimum number of individuals		24	709	211	24	112	6	300	19	271	326	350	28	694	304	192	590	52

Key:

o: open country; s: shade-loving; c: catholic, fsl: freshwater slum; **: introduced species

Table 2: Land Mollusca from ditch 332 (ARC WNB98)

Context		362	362	258	258	258	258	256	249	249	249	296	296	296	296
Depth (m)		1.30-1.40	1.20-1.30	1.10-1.20	1.00-1.10	0.90-1.00	0.80-0.90	0.70-0.80	0.60-0.70	0.50-0.60	0.40-0.50	0.30-0.40	0.20-0.30	0.10-0.20	0.00-0.10
Taxa	Habitat														
<i>Pomatias elegans</i> (Müller)	c	56	-	-	1	3	4	39	17	27	24	14	13	23	21
<i>Cochlicopa</i> spp.	c	-	-	-	-	-	-	-	-	-	-	-	-	1	-
<i>Pupilla muscorum</i> (Linné)	o	-	-	-	-	-	-	-	-	-	1	-	-	-	-
<i>Vallonia costata</i> (Müller)	o	-	-	-	3	1	-	2	-	-	-	-	6	7	-
<i>Vallonia excentrica</i> (Sterki)	o	-	-	-	-	-	-	-	-	-	-	-	3	2	-
<i>Discus rotundatus</i> (Müller)	s	11	-	11	8	6	3	18	10	1	2	-	1		1
<i>Vitrea</i> spp.	s	-	-	1	1	-	-	1	-	-	-	-	-	-	-
<i>Aegopinella pura</i> (Alder)	s	-	-	-	1	-	-	-	-	1	-	2	-	-	-
<i>Aegopinella nitidula</i> (Draparnaud)	s	10	1	3	4	4	-	10	-	5	1	1	1	3	-
<i>Oxychilus cellarius</i> (Müller)	s	-	1	4	2	4	2	2	-	-	-	1	-	-	1
<i>Cochlodina laminata</i> (Montagu)	s	-	-	-	1	-	-	-	-	-	-	-	-	3	1
<i>Clausilia bidentata</i> (Ström)	s	3	-	-	-	2	-	1	1	-	-	1	1	2	2
<i>Helicidae</i> indet.	o, c	-	-	-	-	-	-	2	-	-	-	-	-	-	-
<i>Candidula gigaxii</i> (Pfeiffer)	o**	-	-	-	-	-	-	1	-	-	-	-	-	-	-
<i>Helicella itala</i> (Linné)	o	1	-	-	-	-	-	-	-	-	-	1	1	9	1
<i>Monacha cantiana</i> (Montagu)	c**	-	-	-	-	-	-	-	1	-	-	-	-	-	-
<i>Trichia hispida</i> (Linné)	c	-	-	-	6	4	-	1	-	-	-	-	-	-	-
<i>Cepaea/Arianta</i> spp.	c	1	-	-	1	1	-	-	1	-	1	-	-	2	2
<i>Cepaea</i> spp.	c	-	-	-	1	2	1	3		+	-	1	-	2	-
<i>Cepaea hortensis</i> (Müller)	c	-	-	1	-	-	2	-	-	-	-	-	-	-	-
<i>Cepaea nemoralis</i> (Linné)	c	-	cf.1	-	1	+	1	4	-	-	+	-	1	-	-
Minimum number individuals		82	3	20	30	27	13	84	30	34	29	21	27	54	29

Key:

o: open country; s: shade-loving; c: catholic; fsl: freshwater slum; **: introduced species

Table 3: Land Mollusca from ARC TGW97

Area		TT1472	TT1472	TT1472	TT1472	TT1472	TT1458	TT1458	TT1460
Phase		UD	UD	UD	UD	UD	RB	UD	RB
Feature		Colluvium	Colluvium	Colluvium	Colluvium	Colluvium	Ditch	Ditch	Ditch
Context number		2	2	2	3	3	170	124	154
Unit		2	2	3	4	5			
Sample number		5	6	7	8	9	15	16	13
Taxa	Group								
<i>Pomatias elegans</i> (Müller)	c	-	-	-	-	-	42	22	+
<i>Cochlicopa</i> spp.	c	-	1	-	-	-	-	-	-
<i>Pupilla muscorum</i> (Linné)	o	-	8	-	-	-	-	-	-
<i>Vallonia costata</i> (Müller)	o	-	4	-	-	-	-	-	-
<i>Vallonia pulchella</i> (Müller)	o	-	1	-	-	-	-	-	-
<i>Vallonia excentrica</i> (Sterki)	o	2	7	-	-	-	-	-	-
<i>Ena obscura</i> (Müller)	s	-	-	-	-	-	1	1	-
<i>Aegopinella nitidula</i> (Draparnaud)	s	-	-	-	-	-	11	4	-
<i>Clausilia bidentata</i> (Ström)	s	-	-	-	-	-	1	1	-
<i>Candidula gigaxii</i> (Pfeiffer)	o**	6	10	2	1	-	-	-	1
<i>Helicella itala</i> (Linné)	o	1	6	2	-	1	10	2	2
<i>Monacha cartusiana</i> (Müller)	o**	-	-	-	-	-	2	-	-
<i>Trichia hispida</i> (Linné)	c	-	-	-	-	-		1	1
<i>Cepaea/Arianta</i> spp.	c	-	-	-	-	-	1	3	-
<i>Cepaea</i> spp.	c	-	-	-	-	-	+	-	+
Minimum number individuals		9	37	4	1	1	68	34	4

Key:

o: open country; s: shade-loving; c: catholic; **: introduced species

Table 4: Land Mollusca from ARC 33098

Phase		MIA
Feature		pit
Feature number		327
Context number		325
Sample number		65
Taxa	Habitat	
<i>Pomatias elegans</i> (Müller)	c	26
<i>Discus rotundatus</i> (Müller)	s	4
<i>Aegopinella pura</i> (Alder)	s	1
<i>Aegopinella nitidula</i> (Draparnaud)	s	4
<i>Oxychilus cellarius</i> (Müller)	s	2
<i>Candidula intersecta</i> (Poiret)	o**	1
<i>Monacha cantiana</i> (Montagu)	c	1
<i>Trichia hispida</i> (Linné)	c	7
Minimum number individuals		46

Key:

o: open country; s: shade-loving; c: catholic; **: introduced species