

Land molluscs

By Elizabeth Stafford

Assessment of a number of bulk samples (7-40L), primarily for the recovery of charred plant remains and charcoal (see Meen and Cook above) indicated the burial conditions at Carterton were generally not conducive for the preservation of mollusc shell. However, shell was found to be present in low quantities in eight samples from the fills of the early Bronze Age ring ditch and cremation deposit. The flots from these samples were submitted for more detailed examination in order to ascertain if the shell assemblages could additionally provide information regarding local environmental conditions associated with the period of occupation. Whole shells and apical fragments were extracted from the samples, identified with the aid of a modern reference collection and counted. Nomenclature follows Anderson (2005) and habitat information Evans (1972), Kerney (1999) and Kerney and Cameron (1979).

The results are presented in tabular format in Table 1. Overall shell preservation was quite poor considering the large volumes of sediment processed. In all but one sample abundance ranged from between 12 and 35 individuals per sample and the majority of the specimens were invariably worn and pitted with some fragmentation. The sample with the highest number of individuals derived from the possible stabilisation horizon (context 20014, sample) 20002), totalling 132 shells. Here, open-country species accounted for 44% of the assemblage, catholic species 11%, and shade-demanding species 45%. The most frequent species was the open-country grass snail *Vallonia excentrica* at 37%. Other open country species indicative of dry grassland with a short sward include *Pupilla muscorum* (4%) and *Vertigo pygmaea* (4%). The catholic species, which require more mesic conditions, included *Cochlicopa* sp. (5%) and *Trochulus hispidus* (6%). Of the shade-demanding species, *Carychium tridentatum* (the Long-toothed Herald Snail) was most numerous at 32%, along with smaller numbers of various zonitids (15%) (eg. *Aegopinella nitidula*, *Oxychilus cellarius*, *Vitrea contracta*), *Discus rotundatus* (2%), *Punctum pygmaeum* (2%) and a single specimen of *Merdigera obscura* (the Lesser Bulin). The remaining seven samples produced assemblages of similar character, but the low numbers precluded calculations of percentage frequency. Additional taxa included open grassland snails *Vallonia costata*, *Vallonia pulchella* and the xerophile helioid *Helicella itala*. Additional shade-demanding taxa included Clausiliidae (cf. *Cochlodina laminata* and cf. *Balea perversa*), *Acanthinula aculeata* and *Nesovitrea hammonis*.

The xerophile *Candidula* cf. *intersecta* (the Wrinkled Snail), a species of both open dry grassland and agricultural environments, was quite frequent, although may represent an intrusive element reflecting the shallow nature of the preserved features. *Candidula* spp. are considered to be Roman or medieval

introductions (Evans 1972, 179; Kerney 1999), this, together with the frequent occurrence of the tiny burrowing snail *Cecilioides acicula* (the Blind Snail), suggests some post-depositional bioturbation of the deposits occurred, perhaps throwing some doubt on the coevality of the shell in the sparser assemblages. However, a number of shells associated with the cremation appeared to be burnt indicating a direct association with the cremated bone, and *Candidula* was notably absent from the most abundant assemblage from context 20014.

Overall, although the shell numbers were quite low, together the assemblages broadly suggest the ring ditch was located within an environment of dry open grassland. There was no real indication from the mollusc assemblages of very enclosed conditions or woodland in the immediate vicinity of the feature, although such environments or shrubby vegetation may have existed in the wider area from which molluscs could colonise the ditch. The catholic and shade-demanding taxa are suggestive of more mesic conditions, possibly existing within the micro-environment of the ditch as it infilled. This may have included rank grass and scrubby vegetation due to the fact many of the shade-demanding species such as the zonitids, *Punctum pygmaeum* and *Acanthinula aculeata* occur at the catholic end of the scale. Due to its minute size, *Carychium tridentatum* often finds shade in the base of long grass, however the presence of the predatory Zonitids along with *D. rotundatus*, may also suggest some leaf litter collecting therein. This suggests that the ditch itself may not have been heavily grazed by livestock during infilling. A single anomalous specimen of the freshwater planorbid *Anisus leucostoma* from context 20040 is out of place in the assemblage and may have been inadvertently transported to the site, perhaps attached to vegetation or bird plumage.

References

- Anderson, R, 2005 An annotated list of the non-marine Mollusca of Britain and Ireland, *Journal of Conchology* 38(6), 607–637
- Evans, J G, 1972 *Land Snails in Archaeology*, London: Seminar Press
- Kerney, M, 1999 *Atlas of the Land and Freshwater Molluscs of Britain and Ireland*, Colchester: Harley Books
- Kerney, M P and Cameron, R, 1979 *A field guide to the land snails of Britain and North-West Europe*, London: Collins

Table 1: Molluscan assemblages

Sample No	20000	20001	20002	20003	20004	20005	20006	20007
Context No	20002	20002	20014	20063	20008	20088	20040	20050
Feature			20012	20061	20009	20020	20037	20077
Description	Cremation - Spilt 1	Cremation - Spilt 2	Middle fill of ring-ditch	Middle fill of ring-ditch	Upper fill of ring-ditch	Upper fill of ring-ditch	Upper fill of ring-ditch	Lower fill of ring-ditch
Taxa								
<i>Carychium tridentatum</i> (Risso)	-	-	32	1	-	1	-	-
Clausiliidae	-	-	-	-	-	1	-	1
cf. <i>Balea perversa</i> (Linnaeus)	-	-	-	-	1	-	-	-
cf. <i>Cochlodina laminata</i> (Montagu)	-	-	-	1	-	-	-	-
<i>Cochlicopa</i> sp.	-	-	2	1	-	-	-	-
<i>Cochlicopa lubrica</i> (Müller)	-	-	4	-	-	-	-	-
<i>Discus rotundatus</i> (Müller)	1	1	3	-	2	-	-	2
<i>Merdigera obscura</i> (Müller)	-	-	1	-	-	-	-	-
<i>Cepaea/Arianta</i> sp.	-	-	1	-	-	-	-	-
<i>Candidula</i> cf <i>intersecta</i> (Poiret)	2	14	-	1	-	4	10	3
<i>Helicella itala</i> (Linnaeus)	-	4	-	1	1	-	-	-
<i>Trochulus hispidus</i> (Linnaeus)	-	-	8	-	-	2	-	-
Zonitidae	-	-	-	-	-	-	1	-
<i>Aegopinella nitidula</i> (Draparnaud)	-	-	11	1	-	-	-	-
<i>Nesovitrea hammonis</i> (Ström)	-	-	-	-	1	-	-	-
<i>Oxychilus cellarius</i> (Müller)	-	-	7	-	-	4	-	-
<i>Anisus leucostoma</i> (Millet)	-	-	-	-	-	-	1	-
<i>Vitrea contracta</i> (Westerlund)	-	-	2	-	-	-	-	-
<i>Punctum pygmaeum</i> (Draparnaud)	-	-	2	-	-	-	-	-
<i>Pupilla muscorum</i> (Linnaeus)	-	1	5	-	1	-	-	-
<i>Acanthinula aculeata</i> (Müller)	1	-	-	-	-	-	-	-
<i>Vallonia</i> sp.	3	5	32	6	8	6	20	6
<i>Vallonia costata</i> (Müller)	3	-	-	1	1	-	-	-
<i>Vallonia excentrica</i> (Sterki)	2	1	17	-	1	2	2	3
<i>Vallonia pulchella</i> (Müller)	-	1	-	-	1	-	1	1
<i>Vertigo pygmaea</i> (Draparnaud)	-	3	5	-	1	-	-	-
Total	12	30	132	13	18	20	35	16
<i>Cecilioides acicula</i>	***	**	***	****	****	***	****	***