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**Insect and other invertebrate remains from Dundrennan Abbey,  
near Kirkcudbright, S.W. Scotland**

by

Harry Kenward

**Summary**

*A series of small groups of invertebrate remains from excavations at Dundrennan Abbey, near Kirkcudbright, SW Scotland, was identified. The material was generally of little interpretative significance and in some cases clearly of modern origin. One assemblage included a compressed mass of woodlouse and centipede remains and was probably a faecal or regurgitated pellet, the lack of fine matrix arguing for the former, the species present on the other hand suggesting a ground feeder such as hedgehog. The woodlouse remains showed a notable pattern of decay which may indicate why these animals are apparently under-represented in archaeological deposits.*

**Keywords:** DUNDRENNAN ABBEY; MEDIEVAL; POST-MEDIEVAL; INVERTEBRATES; INSECTS; WOODLICE; MOLLUSCS; PREDATOR PELLET/FAECES; TAPHONOMY

Author's address:

Environmental Archaeology Unit  
University of York  
Heslington  
York  
YO1 5DD

Telephone: (01904) 433843/51  
Fax: (01904) 433850

Prepared for:

AOC Scotland Ltd  
The Schoolhouse  
4 Lochend Road  
Leith  
Edinburgh EH6 8BR

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## **Insect and other invertebrate remains from Dundrennan Abbey, near Kirkcudbright, S.W. Scotland**

### **Introduction and methods**

Insect and other invertebrate remains from sediment samples collected during investigations at Dundrennan Abbey, near Kirkcudbright, S. W. Scotland, processed and sorted by staff of AOC (Scotland) Ltd, were submitted to the EAU for identification and cataloguing, and to establish whether they (a) were ancient or modern and (b), if the former, had interpretative value.

The material was supplied sorted and dry, mostly in gelatine capsules within labelled snap-top polythene bags; one group of remains was stored dry in a glass vial.

### **Results and discussion**

The remains from the samples are listed in Table 1. The records are presented in context order; in view of the small numbers and generally low interpretative value it has been considered unnecessary to organise the information further.

#### *General comments*

Unfortunately these remains gave little archaeological information. Some groups were far too small to be of use, while others included remains which were clearly or probably of recent origin; the insects with more-or-less entire appendages and the *Euophryum* weevil (a wood-borer from Australasia) are certainly modern. Indeed, the entire fauna may be intrusive.

### **Context 258**

The material from this deposit, late in the sequence in the Great Drain fills, was of special interest. The remains recovered were diverse and rather abundant. They fell into two groups: free remains and a single rounded compressed pellet about 21x13x5 mm in maximum dimensions. The latter was composed of centipede (*Lithobius* sp.) and woodlouse (*Oniscus asellus*) remains, some still associated as almost entire individuals and some separated. The quantities of the two species were about equal. This was clearly a pellet or dropping from an insect-feeding vertebrate. Possible sources are frogs and toads, mammalian insectivores (perhaps hedgehog), and birds. The lack of a fine matrix perhaps indicates a bird pellet rather than faeces, unless some process has differentially removed fine matter. However, the species present might suggest a ground-feeder, perhaps a large amphibian or (more probably) a hedgehog. There were no obvious indications that this material was of recent contaminative origin, nor that it was ancient.

This larger group of fossils, although interesting in its own right, has rather little interpretative significance. It probably formed from the fauna living in a void, or falling accidentally into it, the presence of the predator pellet or dropping suggesting access for such species. The *Megaselia* fly puparia indicate some kind of decaying matter, but it is suspected that the invertebrate corpses themselves might have provided food for these very catholic flies.

Some of the woodlouse remains were well preserved, but others, both in the pellet and the free material, showed characteristic decay which casts light on the puzzle of the rarity of fossils of these animals in most assemblages preserved by anoxic waterlogging. The cuticles were clearly eroded. Some areas had an appearance reminiscent of very decayed oyster shell, and were extremely fragile and crumbly. Such fossils would undoubtedly disappear from the record very easily. It was also observed that some of the centipede remains appeared to have mineral deposits forming on them, perhaps an early stage of mineral replacement.

### **Acknowledgements**

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### **References**

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Table 1. Records of insect and other invertebrate remains from Dundrennan Abbey, near Kirkcudbright, S. W. Scotland. No. - number; s - several and m - many (sensu Kenward et al. 1986; Kenward 1992).

Context	Identifications	No.	Comments
93	?Sphaeroceridae sp.	1	damaged puparium
	?Oligochaeta sp.	1	?earthworm egg capsule
100	egg/egg capsule indet.	s	perhaps a small oligochaete (earthworms and their relatives)
126	Oligochaeta sp.	s	fragmentary earthworm egg capsules
	<i>Phyllobius pyri</i> (Linnaeus)	1	right elytron; weevil with many hosts
137	egg/egg capsule indet.	s	as context 100
	?Carabidae sp.	1	
	<i>Anotylus rugosus</i> (Fabricius)	1	head; very common rove beetle of natural and artificial decomposer habitats
	?Oligochaeta sp.	1	fragmentary ?earthworm egg capsule
	Hymenoptera sp.	1	cuticular fragment
183	?	2	mineralised structures, perhaps internal casts and seeds rather than invertebrate?
185	Oligochaeta sp.	1	fragmentary earthworm egg capsule
	egg/egg capsule indet.	s	as context 100
197	Oligochaeta sp.	2	fragmentary earthworm egg capsules
208	Oligochaeta sp.	1	fragmentary earthworm egg capsule
	Ptinidae sp.	2	spider beetles; two abdomens, one with a single and the other with both elytra. Peculiarly preserved: very brittle but not charred. ? <i>Tipnus unicolor</i> (Piller and Mitterpacher) or <i>Ptinus</i> sp.
221	egg/egg capsule indet.	s	as context 100
	?	1	unidentified cuticular fragment
253	? <i>Oniscus asellus</i> (Linnaeus)	1	immature woodlouse
	<i>Cyphon</i> sp.	1	with most appendages complete, clearly modern; a marshland beetle
	Insecta sp.	1	dark-coloured cuticle fragment
257	egg/egg capsule indet.	3	perhaps a small oligochaete (earthworms and their relatives)
258	<i>Oniscus asellus</i> (Linnaeus)	s	woodlice

Context	Identifications	No.	Comments
	<i>Megaselia</i> sp.	m	boat-shaped puparia of scuttle-flies (Phoridae)
	<i>Nebria brevicollis</i> (Fabricius)	1	ground beetle; most parts present
	<i>Pterostichus madidus</i> (Fabricius)	1	ground beetle; most parts present
	<i>Lithobius</i> sp.	s	centipedes
	? <i>Oxychilus</i> sp.	6	juvenile landsnails
	? <i>Trichia</i> sp.	1	juvenile landsnail
	Gastropoda spp.	2	damaged shells of two species of 'spired' landsnails
266	egg/egg capsule indet.	s	perhaps a small oligochaete (earthworms and their relatives)
	Diptera sp.	1	adult fly thorax
	Pseudoscorpiones sp.	1	false-scorpion part abdomen
267	egg/egg capsule indet.	m	perhaps a small oligochaete (earthworms and their relatives)
	Carabidae sp.	1	ground beetle femur
279	<i>Catops</i> sp.	1	joined hind parts with most of legs
	<i>Micropeplus porcatus</i> (Paykull)	1	joined hind parts
	<i>Euophryum confine</i> Broun	1	entire weevil including legs, recent importation from Australasia, clearly modern!
	Diplopoda sp.	2	millipedes, one unmineralised with legs, ? modern, the other perhaps ancient
	?Invertebrata	1	mineralised structure, possibly an internal cast
293	?Carabidae sp.	1	ground beetle femur
	Diplopoda sp.	1	millepede, mineralised segments