INSECT AND PLANT REMAINS AT PINGEWOOD, BERKSHIRE
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AML REPORT 3668

Insect Remains from Pingewood, Berkshire

Maureen A. Girling

Small numbers of insect remains were sorted from three sample flotants from Roman features at the site of Pingewood, and submitted to the Ancient Monuments Laboratory for identification. Seeds similarly extracted from Roman and earlier samples were also sent and these form a separate report by Miss P.Paradine.

Preservation of the insects was generally good, although some of the sclerites were fragmented, but numbers were very low, possibly resulting from lack of recognition. These are given as Table I. The paucity of species prevents any attempt at faunal assessment, but certain indicator species are suggestive of possible elements in the local environment. The dung beetles and 'dor' beetles Colobopterus fossor, Aphodius sp. and Geotrupes sp. suggest large mammals, possibly implying grazing, although it must be stressed that all are strong fliers. Dung, if present, would have provided a suitable habitat for Anotylus rugosus. A single head of Anobium punctatum was recorded in F253. The larvae of this species are the infamous woodworm which bore into wood, especially dead trees, structural timbers and furniture, but the adults fly strongly and wood cannot be inferred from an isolated occurrence. The small group of 6 weevils provide possible evidence of food plants. Both Sitona species attack various clovers and other Papilionaceae, and Hypera punctata feeds on a variety of open ground plants, including Medicago (lucerne), Ononis (restharrow) and Trifolium (clover). Acalles ptinoides has been recorded on young oak saplings and from hedges but it also occurs on ling (Calluna) or mosses. Notaris acridulus feeds on a variety of waterside vegetation and the tiny weevil Tanysphyrus lemnae feeds exclusively on duckweed. A mosaic of any or all these vegetation types, possibly with some grazing, might have existed in the local Roman landscape at Pingewood.

TABLE I

Insect species from Pingewood

SAMPLE CODE	F2	F236	F253
Dermaptera			
Forficula auricularia	-	-	1
Coleoptera			
Carabidae			
Carabus violaceus L.	-	-	1
Nebria brevicollis (F.)	1	-	-
Amara sp.	-	-	1
Dromius linearis (Ol.)	-	1	-
Geotrupidae			
Geotrupes sp.	-	-	1
Scarabaeidae			
Colobopterus fossor (L.)	-	1	-
Aphodius spp.	1	1	-
Staphylinidae			
Anotylus rugosus (F.)	-	1	-
Anobiidae			
Anobium punctatum (Deg.)	-	-	1
Curculionidae			
Sitona sulcifrons (Thun.)	-	-	1
S.sut.ralis Steph.	-	-	1
Hypera punctata (F.)	-	1	1
Tanysphyrus lemnae (Payk.)	-	-	1

	F2	F236	F253
Notaris acridulus (L.)	-	-	1
Acalles ptinoides (Marsh.)	-	2	1
Hymenoptera			
Formicinae	-	-	2
Diptera			
Puparia	8	-	-

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PLANT REMAINS FROM BRONZE AGE AND ROMAN CONTEXTS AT PINGEWOOD

P M Paradine

The samples from Roman (Ref. PE1 78) and Bronze Age (Ref. PE2 79) layers were received as sieved and sorted material, this probably resulting in a bias in favour of those seeds which float naturally.

The dry material was in a relatively good state of preservation, having been recovered from waterlogged sediments. Only the cereals in samples F2 and F253 and the Agrostemma githago showed any indication of carbonisation.

The species found in the samples do not fall into any convenient plant groups, and they may simply represent a conglomerate collection of debris from the surrounding area, or this may be the result of sampling. It is most likely that the seeds found in the samples examined represent only a small proportion of the species present at the site. Evidence of this can be shown in sample F253 where a single nutlet of Lycopus europaeus L. was found adhering to the mud lining the inner shell surface of the Corylus avellana fragments. It is also most unlikely that sample F446 contained only water buttercup achenes; these achenes become naturally enmeshed in the plant's own growth, forming a continuous dense mat of vegetation as they germinate. This mat floats usually just below water level forming a natural trapping area for all floating debris and it often contains large deposits of various seeds.

No accurate environmental picture can be deduced from the plant list, for, as stated above, there are no groups of habitats found in any one sample. The plants range from species such as Rosa sp., Rubus spp., Sambucus nigra; Fragaria vesca; Ballota nigra and Glechoma hederacea which suggest a woodland/ copse edge and surrounding grassy sloping bank with associated hedgerow-type

growth of plants associated with water. Marginal aquatics are represented by Alisma plantago-aquatica and Lycopus europaeus, both of which can survive in muddy ditches; Callitriche can exist in a relatively shallow brackish position but plants such as Apium nodiflorum and Ranunculus subgenus Batrachium require fresh running water to establish and produce fertile fruits. The last group of plants are those commonly found around disturbed/cultivated ground, ie Aethusa cynapium and the Polygonum combined with ruderals such as Thlaspi; Cirsium spp. and Urtica spp., in association with plants found as "weeds" in cereal fields.

PINGEWOOD Fruits and seeds found in botanical samples from Roman and Bronze Age layers

		BRONZE AGE: PE2.79			ROMAN: PE1 78						
		BA5	BA6	BA134	F2	F84	F236	F253	F253	F446	F452
Ranunculaceae											
Ranunculus subgenus Batrachium	Achene	1	–	–	1	5	–	–	–	22	215
R.acris L.	Achene	–	–	–	9	–	–	–	–	–	–
R.bulbosus L.	Achene	–	–	1	–	3	–	–	9	–	–
R.repens L.	Achene	–	–	–	9	–	–	–	–	–	–
Fumariaceae											
Fumitory officinalis L.	Capsule	–	–	–	–	–	1	–	–	–	–
Brassicaceae (Cruciferae)											
Alliaria petiolata (Bieb.) Cav et Grand.	Seed	–	–	–	–	–	–	–	1	–	–
Thlaspi arvense L.	Seed	–	–	–	–	–	–	–	2	–	–
Violaceae											
Viola sp. subgenus Melanium	Seed	–	–	–	–	–	–	–	3	–	–
Caryophyllaceae											
Agrostemma githago L.	Seed C	–	–	–	2	–	–	–	–	–	–
Cerastium sp.	Seed	–	–	–	–	–	–	–	5	–	–
Stellaria graminea L.	Seed	–	–	–	1	–	–	–	–	–	–
S.media (L) Vill.	Seed	Frag.	–	–	–	–	–	–	50	–	–
Moehringia trinervia (L) Clair.	Seed	–	–	–	–	–	–	–	7	–	–
Chenopodiaceae											
Chenopodium album L.	Seed	Frag.	–	–	18	1	–	–	37	–	–
C.polyspernum L.	Seed	–	–	–	–	–	–	–	74	–	–
Atriplex patula L.	Seed	–	–	–	3	–	–	–	6	–	–
Malvaceae											
Malva sylvestris L.	Fruit	–	–	–	–	–	–	–	1	–	–
Rosaceae											
Fragaria vesca L.	Achene	–	–	–	6	–	–	–	–	–	–
Potentilla erecta (L) Rausch.	Achene	–	–	–	2	–	–	–	8	–	–
Prunus spinosa L.	Stone	–	–	–	Frag	–	–	–	13	–	–
Rosa sp.	Achene	–	–	–	–	–	Thorns of Rosa & Rubus spp. only in this sample	–	6	–	–
Rubus spp.	Seeds	–	–	7	6	–	Es 492	–	Est. 840	–	Frag.
Callitrichaceae											
Callitriche sp.	Fruit								Fruit segments		
Cornaceae											
Cornus sanguinea L.	Fruit	–	–	–	–	–	–	–	15	–	–
Apiaceae (Umbelliferae)											
Aethusa cynapium L.	Cremocarp	–	–	–	1	–	–	–	–	–	–
Aegopodium podagaria L.	Cremocarp	–	–	–	1	–	–	–	2	–	–
Apium nodiflorum (L) Lag.	Cremocarp	–	–	–	–	–	–	–	12	–	–
Conium maculatum L.	Cremocarp	–	–	–	–	–	–	–	4	–	–

			BA5	BA6	BA134	F2	F84	F136	F253	F253	F446	F452
Polygonaceae												
Bilderdykia convolvulus (L) Dumort (syn. Polygonum convolvulus L.)		Achene	–	–	–	–	–	1	–	–	–	–
Polygonum aviculare L.		Achene	–	–	Frag	36	3	–	–	5	–	–
P.lapathifolium L.		Achene	Frag	–	1	–	–	–	–	11	–	–
P.persicaria L.		Achene	–	–	–	3	6	–	–	1	–	–
Rumex crispus L.	Fruit/	Achene	–	–	–	8	–	–	–	1	–	–
R.obtusifolius L.	Fruit/	Achene	–	–	–	6	–	–	–	14	–	–
Urticaceae												
Urtica dioica L.		Achene	–	–	2	–	–	31	–	69	–	–
U.urens L.		Achene	–	–	–	9	7	–	–	20	–	–
Corylaceae												
Corylus avellana L.	Fragments of	shell	–	–	–	Frag	–	–	–	Frag	–	–
Solanaceae												
Atropa belladonna L.		Seed	–	–	–	–	–	–	–	6	–	–
Scrophulariaceae												
Odonites verna (L) Dumort		Seed	–	–	–	–	1	–	–	–	–	–
Lamiaceae (Labiatae)												
Ballota nigra L.		Nutlet	–	–	–	–	–	3	–	19	–	–
Glechoma hederacea L.		Nutlet	–	–	–	1	–	–	–	5	–	–
Lycopus europaeus L.		Nutlet	–	–	–	–	–	–	–	1	–	–
Prunella vulgaris L.		Nutlet	–	–	–	5	–	–	–	–	–	–
Ajuga reptans L.		Nutlet	–	–	–	–	1	–	–	–	–	–
Stachys sp.		Nutlet	–	–	–	–	–	1	–	–	–	–
Caprifoliaceae												
Sambucus nigra L.		Seed	–	–	–	121	1	5	–	121	–	–
Valerianaceae												
Valerianella dentata Poir.		Fruit	–	–	–	–	1	–	–	–	–	–
Asteraceae (Compositae)												
Lapsana communis L.		Achene	–	–	–	–	–	–	–	1	–	–
Cirsium arvense (L) Scop.		Achene	–	–	–	–	–	2	–	3	–	–
C.vulgare (Savi.) Ten.		Achene	–	–	–	4	–	–	–	1	–	–
Carduus sp.		Achene	–	–	–	–	–	–	–	1	–	–
Alismaceae												
Alisma plantago-aquatica L.	Fruit	frags.	–	–	–	–	–	–	–	–	–	2
Juncaceae												
Juncus sp. most likely J.conglomeratus L.		Seeds	–	–	–	15	–	–	–	–	–	–
Cyperaceae												
Carex flacca Schreb.		Achene	–	–	–	–	1	–	–	3	–	–
C.divulsa Stokes		Achene	–	–	–	1	–	–	–	–	–	–
C.lepidiocarpa Tausch.		Achene	–	–	–	3	–	–	–	3	–	2
Eleocharis palustris (L) R & S.		Achene	–	–	–	4	1	–	–	4	–	–
Cyperaceae sp. most likely a Carex sp.		Frags.	–	–	Frag.	Frag.	–	–	–	Frag.	–	–

		BA5	BA6	BA134	F2	F84	F236	F253	F253	F446	F452
Poaceae (Gramineae)											
Phleum pratense L.	Caryopsis	3	-	-	-	-	-	-	-	-	-
Bromus secalinus L.	Caryopsis C	-	-	-	1	-	-	-	2	-	-
Triticum spelta L.	Rachis & Caryopsis C	-	-	-	1	-	-	-	6 & R	-	-
Avena sp.	Caryopsis C	-	-	-	1	-	-	-	-	-	-

All the larger samples contained very many small fragments of seeds and internal tissues, these fragments were not included in the figures unless they were half or more the original size of the disseminule.

C = carbonised

R = rachis

PLANTS REPRESENTED IN BRONZE AGE AND ROMAN SAMPLES FROM PINGEWOOD.

Ranunculaceae	Ranunculus subgenus Batrachium	Water buttercups
	R.acris L.	Meadow buttercup
	R.bulbosus L.	Bulbosus buttercup
	R.repens L.	Creeping buttercup
Fumariaceae	Fumaria officinalis L.	Fumitory
Brassicaceae (Cruciferae)		
	Alliaria petiolata (Bieb.) Cav. et Grande	Jack-in-the-Hedge
	Thlaspi arvense L.	Pennygrass
Violaceae	Viola sp. of subgenus Melanium (V.tricolor group)	Heartsease
Caryophyllaceae	Agrostemma githago L.	Corncockle
	Cerastium sp.	Mouse-eared-chickweed
	Stellaria gramineae L.	Lesser stitchwort
	S.media (L) Vill.	Chickweed
	Moehringia trinervia (L) Clair.	Sandwort
Chenopodiaceae	Chenopodium album L.	Fat hen
	C.polyspernum L.	All-seed
	Atriplex patula L.	Common orache
Malvaceae	Malva sylvestris L.	Common mallow
Rosaceae	Fragaria vesca L.	Wild strawberry
	Potentilla erecta (L) Rausch.	Common tormentil
	Prunus spinosa L.	Sloe
	Rosa sp.	Wild rose
	Rubus sp.	Blackberry
Callitrichaceae	Callitriche sp.	Water starwort
Cornaceae	[illegible] sanguinea L.	Dogwood
	syn. Thelycrania sanguinea (L) Fourr.	
Apiaceae (Umbelliferae)		
	Aethusa cynapium L.	Fool's parsley
	Aegopodium podagaria L.	Ground elder
	Apium nodiflorum (L) Lag.	Fool's watercress
	[illegible] maculatum L.	Hemlock
Polygonaceae	[illegible] Calystegia convolvulus (L) Dumort	Bindweed
	syn. Polygonum convolvulus L.	
	Polygonum [illegible]alare L.	Redshank
	P.[illegible]pathifolium L.	Pale persicaria
	P.persicaria L.	Persicaria
	Rumex crispus L.	Curled dock
	R.obtusifolius L.	Broad-leaved dock
Urticaceae	Urtica dioica L.	Greater stinging nettle
	U.urens L.	Smaller stinging nettle
Corylaceae	Corylus avellana L.	Hazel nut
Solanaceae	Atropa belladonna L.	Deadly nightshade
Scrophulariaceae	Odonites [illegible] (L) Dumort.	Bartsia

Lamiaceae (Labiatae)		
	Ajuga reptans L.	Bugle
	Ballota nigra L.	Hoarhound
	Glechoma hederacea L.	Ground ivy
	Lycopus europaeus L.	Gipsywort
	Prunella vulgaris L.	Selfheal
	Stachys sp.	Woundworts
Caprifoliaceae	Sambucus nigra L.	Elderberry
Valerianaceae	Valerianella dentata Poir.	Corn salad
Asteraceae (Compositae)		
	Lapsana communis L.	Nipplewort
	Cirsium arvense (L) Scop.	Creeping thistle
	C.vulgare (Savi.) Ten.	Spear thistle
	Carduus sp.	Thistle
Alismaceae (Alismataceae)		
	Alisma plantago-aquatica L.	Water plantain
Juncaceae	Juncus sp.	Reed
Cyperaceae	Carex flacca Schreb.	Carnation sedge
	C.divulsa Stokes	Grey sedge
	C.lepidocarpa Tausch.	
	Eleocharis palustris (L) R.& S.	Spike grass
	? Carex sp.	
Poaceae (Graminea)		
	Phleum pratense L.	Timothy
	Bromus secalinus L.	Brome grass
	Triticum spelta L.	Spelt wheat
	Avena sp.	Oat