Appendix E.A04
Invertebrate Species List

LIST OF INVERTEBRATES RECORDED

Status codes are explained in Appendix 2. A few species recorded in previous years are also recorded and explain the unseasonal appearance of this list which is dominated by the results of sampling in May and early June 2007.

Group / species	English name if available	National	Ecological associations and other comments
		status	
COLEOPTERA			
Apionidae			
Aspidapion radiolus			various species of Malvaceae
Ceratapion carduorum	a weevil	Local	Thistles
Eutrichapion loti			Lotus corniculatus and L. tenuis in dry grassland and dunes
Eutrichapion meliloti			Melilotus species, especially M. officinalis - in the stems
Eutrichapion tenue			larva feeds within stems of Medicago species
Eutrichapion viciae			Viccia craccae, Lathyrus pratensis and probably other vetches
Malvapion malvae			Malvaceae - especially Malva sylvestris
Oxystoma pomonae			vetches - both Viccia and Lathyrus
Perapion hydrolapathi			dock plants - in the stems
Perapion violaceum	a weevil		dock plants, the larvae mining the stems; widespread and common
Protapion trifolii	a weevil		various clovers; widespread and common
Bruchidae			
Bruchus loti			Larvae on Bird's-foot Trefoil; adults at various flowers
Bruchus rufimanus	Broad Bean Weevil		larva on Viccia (vetches); adults at flowers
Byrrhidae			
Byrrhus pilula		Local	associated with moss or rabbit grazed turf, in open situations.

Group / species	English name if available	National	Ecological associations and other comments
Byturidae			
Byturus tomentosus	the raspberry beetle		Brambles and raspberries
Cantharidae			
Rhagonycha fulva	a soldier beetle		tall, rank vegetation in lowland areas
Rhagonycha limbata	a soldier beetle		dry grasslands (formerly called Rhagonycha femoralis)
Carabidae			
Amara (Curtonotus) convexior		Local	open gravelly ground
Amara aenea			phytophagous species of dry, sandy ground
Amara apricaria			phytophagous species of open, dry habitats
Amara ovata			most open and moderately dry ground
Amara similata			phytophagous on ruderal vegetation, especially on waste ground
Harpalus rufipes			ubiquitous
Leistus spinibarbis		Local	amongst litter, in tussocks and under stones
Notiophilus biguttatus	a ground beetle		most open ground habitats
Pterostichus madidus	a ground beetle		ubiquitous
Chrysomelidae			
Altica lythri	a leaf beetle		widespread on many plant species
Aphthona euphorbiae	a leaf beetle	Local	widespread on many plant species
Cassida rubiginosa			Thistles
Chrysolina hyperici			Hypericum species - in a range of habitats
Cryptocephalus moraei	a leaf beetle	Local	Hypericum - larvae probably attended by ants
Longitarsus dorsalis	a flea beetle	Nb	Ragworts (Senecio species) - a southern species
Longitarsus flavicornis			mostly southern on Senecio jacobaeae. Replaced by L. jacobaeae in the north
Longitarsus Iuridus	a flea beetle		feeds on many plant species

Group / species	English name if available	National	Ecological associations and other comments
Oulema melanopa s. str.	a leaf beetle		feeds on grasses - very common
Oulema rufocyanea	a leaf beetle		feeds on grasses - very common
Phyllotreta nigripes			various Cruciferae
Coccinellidae			
Adalia 10-punctata	10-spot ladybird		predatory on other insects
Adalia 2-punctata	2-spot ladybird		predatory on other insects
Coccinella 7-punctata	7-spot ladybird		predatory on other insects
Propylea 14-punctata	14-spot ladybird		predatory on other insects
Curculionidae			
Ceutorhynchus obstrictus	was called Ceutorhynchus		various Cruciferae
	assimilis		
Ceutorhynchus quadridens	now called Pelonomus 4-		various Cruciferae
	tuberculatus		
Phyllobius pyri	a weevil		Larvae develop in the ground an adults feed on a variety of herbage and tree
			leaves
Sitona lepidus			larvae feed in root nodules of legumes, especially clovers
Sitona lineatus	a weevil		various legumes
Tychius meliloti	a weevil	Local	various Leguminosae
Elateridae			
Agriotes acuminatus	a click beetle		larvae feed on grass roots
Agriotes lineatus			larvae feed on grass roots
Agriotes pallidulus			larvae feed on grass roots
Agriotes sputator	a click beetle		larvae feed on grass roots
Latridiidae			

Group / species	English name if available	National	Ecological associations and other comments
Aridius bifasciatus			litter, compost, tussocks etc - more or less ubiquitous
Aridius nodifer			litter, compost, tussocks etc - more or less ubiquitous
Melyridae			
Malachius bipustulatus	a malachite beetle		grasslands
Nitidulidae			
Brachypterus glaber			Nettles
Meligethes aeneus	a pollen beetle		various flowers
Staphylinidae			
Anotylus inustus			leaf litter, carrion, dung and similar
Anotylus tetracarinatus			leaf litter, carrion, dung and similar
Atheta (Mocyta) fungi			a detritus-feeding rove beetle
Atheta hepatica			a detritus-feeding rove beetle
Lathrobium brunnipes			grass tussocks, litter, dung etc
Ocypus (Tasgius) ater			carrion, dung, etc
Ocypus olens	Devil's Coach-horse beetle		carrion
Tachinus signatus			grass litter and tussocks
Tachyporus dispar			a detritus-feeding rove beetle
Tachyporus hypnorum			leaf litter, grass tussocks and similar micro-habitats
CRUSTACEA			
Armadillidiidae			
Armadillidium vulgare	the pill bug		under stones etc
Oniscidae			
Oniscus asellus	a woodlouse		damp, but not wet, habitats everywhere
Platyarthridae			

Group / species	English name if available	National	Ecological associations and other comments
Platyarthrus hoffmannseggi	a woodlouse		lives inside the nests of ants, usually Lasius niger
DERMAPTERA			
Forficulidae			
Forficula auricularia	common earwig		generalist species
DIPTERA			
Agromyzidae			
Agromyza potentillae			mines leaves of Potentilla reptans and other rosaceous plants
Agromyza vicifoliae			mines makes mines in leaves of vetches
Amauromyza labiatarum			mines leaves of Lamium album and other labiates
Phytomyza chaerophylli			Larva mines in leaves of cow parsley
Phytomyza heracleana			mines leaves of Heracleum spondylium
Phytomyza ranunculi			mines leaves of Ranunculus repens
Phytomyza sphondylii			mines leaves of Heracleum spondylium
Asilidae			
Dioctria baumhaueri	a robber fly		predatory -mainly in edge habitats
Leptogaster cylindrica	a robber fly		grassland predator
Machimus atricapillus	a robber fly		grassland predator
Empididae			
Empis (Kritempis) livida			predatory on other flies
Empis (Pachymeria) femorata			predatory on other flies
Empis (Pachymeria) tesselata			predatory on other flies
Empis (Xanthempis) stercorea			predatory on other flies
Empis (Xanthempis)			predatory on other flies
trigramma			

Group / species	English name if available	National	Ecological associations and other comments
Opomyzidae			
Geomyza balachowskyi			larvae feed inside the stems of grasses
Geomyza tripunctata			larvae feed inside the stems of grasses
Opomyza germinationis			larvae feed inside the stems of grasses
Pallopteridae			
Palloptera muliebris		Local	predatory on other insects inside mines and tunnels in grasses etc
Palloptera umbellatarum			larvae feed inside stems of false oat-grass
Palloptera ustulata			predatory on other insects inside mines and tunnels
Pipunculidae			
Pipunculus campestris			internal parasites of froghoppers in grassland and open scrub
Sciomyzidae			
Trypetoptera punctulata			ecology unclear, but found in a range of habitat types
Stratiomyidae			
Beris chalybata			associated with the scrub/grassland interface
Beris vallata			larvae require decomposing organic matter
Chloromyia formosa			ubiquitous
Syrphidae			
Epistrophe elegans			mainly at edge habitats
Episyrphus balteatus			ubiquitous species, partly immigrant, and a predator of aphids
Eristalis arbustorum			Larvae require damp habitats but adults are more or less ubiquitous
Eristalis pertinax			Larvae require damp habitats but adults are more or less ubiquitous
Eumerus strigatus	a hoverfly		larvae feed in Iris rhizomes and Narcissus bulbs, and probably other bulbs
Eupeodes corollae			Grassland
Eupeodes luniger			Grassland

Group / species	English name if available	National	Ecological associations and other comments
Leucozona lucorum			larvae feed on ground layer aphids
Melanostoma mellinum			Grassland
Melanostoma scalare			Grassland
Merodon equestris			larvae feed inside plant bulbs
Paragus haemorrhous			bare or sparsely vegetated, dry sandy ground
Platycheirus albimanus			ubiquitous - larvae prey on aphids
Platycheirus manicatus			aphid predator amongst vegetation
Sphaerophoria scripta			Grassland
Syritta pipiens			larvae in decaying vegetation; adults at flowers
Tabanidae			
Haematopota pluvialis			damp habitats - adult females are blood sucking horseflies
Tephritidae			
Euleia heraclei	a picture-winged fly		white-flowering Umbelliferae
Tephritis vespertina	a picture-winged fly		larvae gall the flowers of Hypochaeris species
Urophora cardui	a picture-winged fly		larvae gall the flowers of thistles
Xyphosia miliaria	a picture-winged fly		larvae gall the flowers of thistles; ubiquitous
HETEROPTERA			
Anthocoridae			
Anthocoris nemorum			low vegetation
Cimicidae			
Orius niger			low vegetation on a variety of dry sites
Orius vicina			predatory amongst low growing vegetation
Cydnidae			
Sehirus bicolor			feeds on labiates - often found in ruderal areas

Group / species	English name if available	National	Ecological associations and other comments
Lygaeidae			
Heterogaster urticae			Nettles
Kleidocerys resedae			trees and shrubs generally
Nysius ericae			in ruderal habitats
Miridae			
Calocoris norvegicus			polyphagous
Capsus ater			Grassland
Heterotoma meriopterum			edge habitats - especially in association with nettles
Leptoterna dolabrata			found in a wide range of grassland habitats
Leptoterna ferrugata			grassland species
Lopus decolor			open grasslands, especially dry calcareous ones but also colonises ruderal sites
Lygocoris lucorum		Local	low plants
Phytocoris varipes			dry, open grasslands are preferred. Partly vegetarian and partly a predator
Stenodema calcaratum			grasslands
Stenodema laevigatum			grasslands
Stenotus binotatus			grasslands
Pentatomidae			
Aelia acuminata			Thistles
Eysarcoris fabricii			probably polyphagous
Palomena prasina			trees and shrubs
HOMOPTERA			
Cercopidae			
Cercopis vulnerata			woodland edge, other edge habitats and damp ditches
Philaenus spumarius	spittle-bug/Cuckoo-spit bug		larvae feed under froth on a wide range of herbaceous plants

Group / species	English name if available	National	Ecological associations and other comments
HYMENOPTERA:			
ACULEATA			
Apidae			
Andrena bicolor			open woodland and grassland - nests in the ground
Andrena haemorrhoa	a mining bee		open scrub, scrubby grassland and similar
Andrena nigroaenea	a mining bee		ubiquitous - nesting in burrows in the ground
Apis mellifera	honey bee		flowers in general
Bombus lapidarius	red-tailed bumble bee		ubiquitous
Bombus lucorum	white-tailed bumble bee		ubiquitous
Bombus pascuorum	common carder bee		ubiquitous
Bombus terrestris	buff-tailed bumble bee		ubiquitous
Halictus tumulorum			ground-nesting solitary bee in a range of habitats
Hoplitis spinulosa		Local	breeds in empty snail shells
Lasioglossum calceatum			nests in burrows on steep sandy banks
Lasioglossum morio			excavates nest burrows in level ground
Nomada fabriciana	a nomad bee		nest parasite of Andrena bees - especially Andrena bicolor
Formicidae			
Lasius flavus	yellow ant		grassland. A high nest density indicates long term grassland continuity
Lasius niger	common black ant.		generalist species
Myrmica rubra	a red ant		ubiquitous
Myrmica scabrinodis			grassland - preferring shorter, damp turf
Vespidae			
Vespula germanica	a common social wasp		ubiquitous
HYMENOPTERA:			

Group / species	English name if available	National	Ecological associations and other comments
SYMPHYTA			
Cephidae			
Calameuta pallipes			a grassland sawfly
Cephus cultratus			larvae mine the stems of grasses
Cephus pygmaeus			larvae mine the stems of grasses
Cimbicidae			
Abia sericea		Local	larva feeds on Succisa and Knautia leaves
LEPIDOPTERA:			
BUTTERFLIES			
Hesperiidae			
Thymelicus lineola	Essex skipper		grassland
Lycaenidae			
Polyommatus icarus	Common blue		various legumes, especially Bird's-foot Trefoil
Nymphalidae			
Coenonympha pamphilus	Small Heath		grassland
Inachis io	Peacock		nettles
Maniola jurtina	Meadow brown		grassland species
Vanessa atalanta	Red admiral		most often recorded as an immigrant from overseas
Pieridae			
Pieris brassicae	Large white		various Cruciferae
Pieris napi	Green-veined white		ubiquitous
Pieris rapae	Small white		ubiquitous
LEPIDOPTERA: MOTHS			
Arctiidae			

Group / species	English name if available	National	Ecological associations and other comments
Spilosoma lubricipeda	White Ermine		herbaceous plants
Tyria jacobaeae	Cinnabar		Ragwort
Choreutidae			
Anthophila fabriciana	Nettle-tap		nettles
Coleophoridae			
Coleophora alcyonipennella			clovers
Coleophora trifolii			clovers
Elachistidae			
Elachista argentella			grasses of several species
Geometridae			
Aplocera efformata	Lesser Treble-bar		St John's-worts
Cabera pusaria	Common White Wave		deciduous trees
Epirrhoe alternata	Common Carpet		bedstraws
Gymnoscelis rufifasciata	Double-striped Pug		flowers of many plants
Idaea aversata	Riband wave		herbaceous plants - especially bedstraws
Idaea biselata	Small Fan-footed Wave		dandelion, plantain, Polygonum etc
Timandra comae	Blood-vein		Polygonaceae
Xanthorhoe montanata	Silver-ground Carpet		herbaceous plants - especially bedstraws
Glyphipterigidae			
Glyphipterix simpliciella			caterpillar feeds on the seeds of Dactylis and Festuca species of grasses
Hepialidae			
Hepialus humuli	Ghost Moth		roots of grasses and herbaceous plants
Hepialus lupulinus	Common Swift		roots of grasses and herbaceous plants
Lasiocampidae			

Group / species	English name if available	National	Ecological associations and other comments
Euthrix potatoria	Drinker		grasses, including reeds
Momphidae			
Mompha raschkiella			Rosebay Willow-herb - mining the leaves
Noctuidae			
Agrotis exclamationis	Heart and Dart		herbaceous plants
Аратеа anceps	Large Nutmeg		grasses, especially Poa annua and Dactylis glomerata
Apamea sordens	Rustic Shoulder-knot		grasses
Autographa gamma	Silver Y		nettles and other herbaceous plants - rarely surviving winter. Immigrants from
			Europe are regular
Charanyca trigrammica	Treble Lines		
Diachrysia chrysitis	Burnished Brass		nettles and other herbaceous plants
Diarsia rubi	Small Square-spot		herbaceous plants
Hada plebeja	Shears		carious Compositae
Hoplodrina alsines	Uncertain		herbaceous plants
Lacanobia oleracea	Bright-line Brown-eye		herbaceous plants
Mythimna comma	Shoulder-striped Wainscot		grasses
Mythimna impura	Smoky Wainscot		grasses
Mythimna pallens	Common Wainscot		grasses
Noctua pronuba	Large Yellow Underwing		herbaceous plants
Oligia fasciuncula	Middle-barred Minor		grasses
Oligia latruncula	Tawny Marbled Minor		grasses
Oligia strigilis	Marbled Minor		grasses
Xestia c-nigrum	Setaceous Hebrew Character		herbaceous plants
Xestia triangulum	Double Square-spot		deciduous trees and shrubs

Group / species	English name if available	National	Ecological associations and other comments
Psychidae			
Psyche casta			grasses, decayed vegetable matter and lichens - feeding from a portable case
Pterophoridae			
Platyptilia pallidactyla			Yarrow and perhaps Tansy
Pyralidae			
Chrysoteuchia culmella			grasses
Crambus lathoniellus			grasses
Crambus pascuella			grasses
Eudonia mercurella			mosses on trunks, walls etc
Homoeosoma sinuella			Plantago species - in the roots
Myelois circumvoluta	was called Myelois cribrella		caterpillar feeds inside the stems of thistles
Scoparia ambigualis			?mosses
Udea prunalis			herbaceous plants, trees and bushes
Sphingidae			
Deilephila elpenor	Elephant Hawk-moth		rosebay willow-herb
Deilephila porcellus	Small Elephant Hawk-moth		bedstraws
Tortricidae			
Bactra lancealana			Juncus, Scirpus and Cyperus
Celypha lacunana			herbaceous plants. Britains most widespread moth
Celypha striana			dandelion - in the root
Cnephasia asseclana			herbaceous plants
Cnephasia stephensiana			herbaceous plants
Dichrorampha alpinana			Ox-eye daisy - in the roots
Epiblema cynosbatella			shoots of rose and bramble

Group / species	English name if available	National	Ecological associations and other comments
Eucosma campoliliana			ragwort
Eucosma cana			thistles and Centaurea nigra - in the flower head
Grapholita compositella			Trifolium and Lotus
Yponomeutidae			
Plutella xylostella			primary immigrant from overseas
Zygaenidae			
Zygaena filipendulae	Six-spot Burnet		Lotus corniculatus
NEUROPTERA			
Chrysopidae			
Chrysopa perla			aphid predator amongst herbage
Chrysoperla carnea			aphid predator of trees and bushes
ODONATA			
Coenagriidae			
Ischnura elegans	Blue-tailed damselfly		found in most permanent water bodies, the adults flying from May to August
ORTHOPTERA			
Acrididae			
Chorthippus brunneus	Field grasshopper		grassland
Tettigoniidae			
Metrioptera roeselii	Roesel's Bush-cricket	Nb	long grassland

EXPLANATION OF NATIONAL STATUS CODES USED IN THE SPECIES LIST

NATIONALLY RARE species are those falling within the Status categories defined in the *British Red Data Books* (Bratton, 1991; Shirt, 1987). These are internationally recognised species listed in the various *Red Data Books* published by, or under the auspices of, the International Union for the Conservation of Nature (IUCN). Species included may not be informally removed or transferred between categories. There are four categories as follows:

RDB 1 - "Endangered" Taxa in danger of extinction and whose survival is unlikely if the causal factors continue operating. These include Species known from only a single locality since 1970, species restricted to habitats which are especially vulnerable species which have shown a rapid and continuous decline in the last twenty years and are now estimated to exist in five or fewer localities and species believed extinct but which would need protection if re-discovered.

RDB 2 - "Vulnerable" Taxa believed likely to move into the Endangered category in the near future if the causal factors continue operating. These include species declining throughout their range, species in vulnerable habitats and species whose populations are low.

RDB 3 - "Rare" Taxa with small populations which are not at present endangered or vulnerable but which are at risk. These are species which are estimated to occur in fifteen or fewer localities.

RDB K - "Unknown" Taxa suspected to fall within the RDB categories but which are at present insufficiently known to enable placement.

NATIONALLY SCARCE species are those falling within the Nationally Notable categories introduced by Ball (1986). They are species which are estimated to occur within the range of 16 to 100 ten-kilometre squares of the British National Grid system since 1970. The specific categorisations of species have been revised since their inception for a number of taxa; those revisions are taken into account in the present report.

Notable species are subdivided as follows:

Na: species estimated to occur within the range of 16 to 30 10-kilometre squares of the National Grid System.

Nb: species estimated to occur within the range 31 to 100 10-kilometre squares of the National Grid System.

NATIONALLY LOCAL species are those which, whilst fairly common, are evidently less widespread than truly common species, but also not qualifying as Nationally Notable having been recorded from over one hundred, but less than three hundred, ten-kilometre squares of the UK National Grid.

Remaining species have either been formally declared "Common" or else are listed as "Unknown" where insufficient data is available to assign a species to any category.