Loddon Garden Village

Technical Appendix 11.7 – Invertebrates

Prepared on behalf of

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1. INTRODUCTION

Scope

1.1 This Technical Appendix supports **Chapter 11 (Biodiversity)** of the Environmental Statement (ES). It sets out the detailed methodologies and results of the survey work undertaken to inform:

- The baseline evaluation of the invertebrate assemblage supported by the Zone of Influence of the Proposed Development;
- The assessment of likely impacts on the invertebrate assemblage;
- The design of impact avoidance and mitigation measures; and
- The design of biodiversity enhancements for invertebrates.

Site and Development Description

1.2 The Site is a large area of land to the west of Wokingham, between the villages of Shinfield, Arborfield and Sindlesham. It is located outside of the Green Belt and is largely made up of agricultural land and grasslands, with pockets of woodland and the River Loddon running through the centre of the Site.

1.3 The description of development for the application is as follows:

"Application for the phased development of a new community at Loddon Garden Village, comprising, in outline:

- *up to 2,800 residential units to include up to 100 custom and self-build plots;*
- *2 primary schools (up to 3 forms of entry) to include early years provision and 1 secondary school (up to 12 forms of entry);*
- *one District Centre, to incorporate up to 11,000m2 of Class E (Commercial, business and Service, to include a food store of around 2,500m2), and Class F (Local Community and Learning);*
- *one Local Centre; to incorporate up to 2,400m2 of Class E;*
- *a Sports Hub to include sports pitches and pavilion space;*
- *up to 4,250m2 of further Class E, Class F, and sui generis development to include commercial, health care and public house;*
- *comprehensive green infrastructure including a Country Park, landscaping and public open space, and ecological enhancement measures;*
- *20 gypsy and traveller pitches;*

- *comprehensive drainage and flood alleviation measures to include Sustainable Urban Drainage Systems (SUDS) and engineering measures within Loddon Valley for the River Loddon;*
- *internal road network including spine road with pedestrian and cycle connections and associated supporting infrastructure;*
- *new and modified public rights of way;*
- *associated utilities, infrastructure, and engineering works, including the undergrounding of overhead lines;*
- *Ground reprofiling to accommodate infrastructure, flood alleviation and development parcels;*
- *Up to 0.5ha of land adjoining St Bartholomew's church for use as cemetery;*
- *Electricity substation (up to 1.5ha).*

All matters reserved other than access, incorporating:

- *a new pedestrian, cycle and vehicular access to Lower Earley Way via a new 4th arm to the Meldreth Way roundabout;*
- *a new pedestrian, cycle and vehicular bridge over the M4;*
- *a new pedestrian, cycle and vehicular bridge over the River Loddon;*
- *a new vehicular access to the A327 Reading Road, via a new arm to the Observer Way roundabout;*
- *a new pedestrian, cycle and vehicular access to Thames Valley Science Park;*
- *an initial phase of internal roads with associated drainage, landscape and engineering works and ground reprofiling, between the A327 and the south eastern boundary of the site.*

Application includes full permission for the change of use of 40.4 hectares of agricultural land to Suitable Alternative Natural Greenspace (SANG), 18.35 hectares of SANG link, and provision of Biodiversity Net Gain measures, the demolition and clearance of 20,809 m2 of buildings and structures at the Centre for Dairy Research (CEDAR) and at Hall Farm, the demolition of 3 existing dwellings on Carter's Hill Lane, and the retention of specified buildings at Hall Farm."

Policy and Legislative Context

1.4 Full details of the legislation and planning policy of relevance to ecology and nature conservation are included in **Appendix 11.1,** however those of particular relevance to invertebrates are summarised below.

Legislation

Environment Act 2021

1.5 The Environment Act 2021 places a requirement on the Secretary of State to make regulations setting out long-term targets for a number of environmental priorities, including halting the decline in biodiversity

Wildlife and Countryside Act 1981 (as amended)

1.6 The Wildlife and Countryside Act 1981 (as amended) provides for the designation of sites of national importance for flora and fauna (Sites of Special Scientific Interest or SSSIs).

Natural Environment and Rural Communities (NERC) Act 2006 (as amended)

1.7 Section 40 of the NERC Act 2006 requires all public bodies, including Local Planning Authorities, to have regard to the conservation of biodiversity when carrying out their normal functions. Habitats and species listed under Section 41 of the Act, known as Habitats/Species of Principal Importance for Nature Conservation in England ('Section 41 species', previously referred to as 'BAP species') are a material consideration in the planning process.

1.8 Current 376 species of invertebrate are listed under S41.

White-clawed Crayfish

1.9 The White-Clawed Crayfish *Austropotamobius pallipes* is a NERC Act S41 Species of Principal Importance in England. Outside designated sites (e.g. SACs), the White-Clawed Crayfish receives limited protection under Schedule 5 (Sections 9.1, 9.5a and 9.5b) of the Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended) and the Salmon and Freshwater Fisheries Act 1975. This legislation does not provide strict protection of individual crayfish or their habitats but it does prevent prohibit the capture of this species without a licence. A conservation licence must therefore be obtained from Natural England before conducting any mitigation involving the capture and handling of this species.

Planning Policies and Biodiversity Strategies

National Planning Policy Framework

1.10 The National Planning Policy Framework (NPPF) (2024) sets out the Government's planning policies for England and how they should be applied. With regard to protecting the natural environment, Section 15 of the NPPF requires that planning decisions should enhance the natural environment and provide net gains for biodiversity.

Local Planning Policy

1.11 The Wokingham Borough Council Adopted Core Strategy: Development Plan Document (January 2010) sets out the framework for the development of the borough, through a series of policies and strategies. Of particular relevance to invertebrates is Policy CP7 – Biodiversity.

1.12 The Wokingham Borough Local Plan Update 2023-2040 was submitted to the Secretary of State for examination by an independent Planning Inspector in February 2025. Whilst not currently enforced, consideration has been given to these emerging policies during the course of the impact assessment, and design of mitigation, compensation and enhancement strategies.

Berkshire Local Nature Recovery Strategy

1.13 The draft Berkshire Local Nature Recovery Strategy was published in February 2025, with finalisation of the strategy anticipated in the summer of 2025. Formed as a requirement of The Environment Act 2021, Local Nature Recovery Strategies aim to identify priority actions for local biodiversity, including habitat and species, to create a collaborative landscape level approach to nature restoration.

1.14 Twenty-four species of invertebrate are included within the draft species list (Royal Borough of Windsor and Maidenhead, 2025). These include both groups of associated species such as 'Beetles of Deadwood' and individual species including White-clawed Crayfish which survives in Barkham Brook to the northeast of the Site.

2. SURVEY AND ASSESSMENT METHODOLOGY

2.1 The approach to ecological impact assessment taken in this report is in line with guidance from the Chartered Institute of Ecology and Environmental Management Guidelines for Ecological Impact Assessment (CIEEM, 2018 v1.3), as set out in **Appendix 11.2**.

Defining the Zone of Influence

2.2 The area over which the activities as associated with the Proposed Development are considered to potentially affect the invertebrate assemblage, the Zone of Influence (ZoI), has been predicted by considering the activities and resultant biophysical changes arising during the construction and operational phases, as summarised below.

Likely Biophysical Changes

2.3 The predicted biophysical changes of relevance to the invertebrate assemblage are as follows:

Activities and Resultant Biophysical Changes During the Construction Phase

- Ground preparation works, including the excavation and movement of soils and vegetation may lead to damage to, or the loss of habitats which support invertebrates; including from siltation of water bodies and water courses.

Activities and Resultant Biophysical Changes During the Operational Phase

- Implementation of habitat management plans, resulting in the enhancement of existing and creation of new habitats for invertebrates; and
- Introduction of artificial lighting along roads and of dwellings and other buildings, affecting nocturnal invertebrates.

Desktop Study Methodology

2.4 A biological records search was commissioned from Thames Valley Environmental Records Centre (TVERC) in July 2024, to obtain existing records of protected and notable invertebrates species within a 2km radius of the Site, thereby incorporating the potential ZoI and providing context with other invertebrate populations in the local area.

Field Survey Methodology

Invertebrate Assemblage

2.5 An assessment of the Site's value for terrestrial and aquatic invertebrates was carried out by Dr Jonty Denton, an expert entomologist, on behalf of EPR. This baseline invertebrate survey involved a series of invertebrate survey visits undertaken during June to October 2022 and April to June 2023.

2.6 Standard field techniques were employed to sample the invertebrate fauna across the Site. These included sweeping vegetation with a wide mouthed sweep net, beating trees and bushes over a beating tray, and grubbing amongst tussocks and key host plant rosettes.

2.7 It is impracticable to survey all the invertebrates within a site, and so only specific groups of species were examined during fieldwork. These groups are sufficiently well known as to allow meaningful comparisons to be made with other sites, both locally and nationally. They are also important as indicators of the quality of a site and the habitats present (see Brooks 1993).

2.8 Groups covered during the survey are outlined at **Table 2.1** below.

Table 2.1 Invertebrate groups surveyed

Order (common name)
Mollusca (slugs and snails)
Arachnida (spiders, harvestmen & pseudoscorpions)
Isopoda (woodlice)
Thysanura (bristletails)
Ephemeroptera (mayflies)
Odonata (dragonflies & damselflies)
Plecoptera (stoneflies)
Orthoptera (grasshoppers & crickets)
Dictyoptera (cockroaches)
Dermaptera (earwigs)
Hemiptera-Heteroptera (true-bugs)
Hemiptera-Homoptera (hoppers)
Neuroptera (lace-wings)
Mecoptera (scorpion-flies)
Lepidoptera (butterflies & moths)
Trichoptera (caddis flies)
Diptera (true flies)
Aculeate Hymenoptera (ants, bees & wasps)
Coleoptera (beetles)

2.9 A 0.5mm mesh GB net was used to sample the ponds and flowing water.

2.10 The surveys were undertaken on the following dates:

- 2022 – 16, 17 June, 23, 24 July, 4 August, 28 September, 25 October; and

- 2023 – 19 April, 18 May, 19 June.

White-clawed Crayfish

2.11 White-clawed Crayfish environmental DNA (eDNA) surveys were undertaken on 18th July 2023. Three sites for eDNA sampling were identified along the River Loddon. This would allow the accurate identification any fragmented populations within the river and more accurately pinpoint the exact location of any population. where a population of White-clawed crayfish may lie. Two further sample sites were identified along the Barkham Brook, where the watercourse entered and exited the Site, to more accurately be able to determine whether populations existed within the Site or upstream.

2.12 The sample collection approach was based upon the SureScreen Scientifics enclosed filter method. At each of the five sample collection sites a filtered water sample was collected following the detailed filtration sample collection guidance outlined by SureScreen Scientific (**Annex 1**).

2.13 In brief, 20 subsamples of river water (50ml) were collected and pooled from evenly spaced locations within each site (total volume 1L) in order to obtain a representative eDNA sample. Sampling was conducted working from a downstream to upstream direction to avoid the disruption of sediment into the sample. Sample collection was focussed around areas within each site deemed likely to be habitable to white clawed crayfish. The pooled sample was homogenized by shaking for 10sec, then, 50ml was taken using a syringe and manually pressure filtered through the enclosed filter unit. Additional volumes of 50ml were passed through the filter until 500ml of water sample was filtered, or the filter became clogged or saturated with filtrate. Once all water had passed through the filter unit, the filter casing was filled with preserving solution and sealed to preserve the filter. Samples were stored in a refrigerator before collection and qPCR analysis by SureScreen Scientific.

2.14 Following consultation with Wokingham Borough Council, a habitat suitability assessment was undertaken on Barkham Brook by licenced surveyor Dr Jonty Denton (2016-19669-CLS-CLS) on 28th May 2025. The habitats at each sampling point were assessed for their potential to support for White-clawed crayfish.

2.15 Environmental conditions were recorded including shade, flow rate, depth and water quality. In addition, where possible a 3-minute kick sample was undertaken. During the kick sample all the micro-habitats were surveyed so as to maximise the diversity of invertebrates caught. In addition, submerged root tangles, overhanging banks and tree trunks were netted, and logs and debris were overturned and searched for caddis larvae, snails etc.

Survey Limitations and Constraints

2.16 No observations were made by the surveyor, although there was a drought across much of southern England in summer 2022, and this was responsible for reducing numbers of many invertebrates, especially aculeate Hymenoptera.

Evaluation Methodology

Habitat Assessment Using Pantheon to Measure Site Quality

2.17 To evaluate the invertebrate value of a site for the purpose of Ecological Impact Assessment, invertebrate ecologists use the Pantheon database tool developed by Natural England and the Centre for Ecology and Hydrology.

2.18 Pantheon is an online tool whereby data from a site is entered into a spreadsheet which is then used by the Pantheon software to analyse invertebrate sample data and assess assemblage data for favourable versus unfavourable condition of the invertebrate assemblage of a Specific Assemblage Type (SAT). Hence, if a SAT is found to be in favourable condition this would indicate that the site is likely to be of significant importance for invertebrates for this SAT at least. Further details are included in **Appendix 3**.

2.19 The relevant Broad Biotopes, Habitats and SATs used in this report are set out in **Table 2.2**. These are the Pantheon categories and corresponding numbers of species (given in parentheses).

Table 2.2: Pantheon Habitats and SATs of relevance to the Site

Broad Biotope	Habitat	Specific Assemblage Type (SAT)
F1 Open Habitats (4364)	F21 Tall Sward & Scrub (2652)	F001 scrub edge (228)
		F002 rich flower resource (243)
		F003 scrub-heath & moorland (347)
	F23 Short Sward & Bare Ground (1295)	F111 bare sand & chalk (444)
		F112 open short sward (200)
T1 Tree-associated (3567)	DW1 Decaying Wood (1186)	A211 heartwood decay (
		A212 sapwood & bark decay (753)
		A213 fungal fruiting bodies (xx)
		A215 epiphyte fauna (xx)
W1 Wetland (xx)	W24 Marshland (xx)	W211 open water on disturbed mineral sediments (xx)
		W221 undisturbed fluctuating marsh (xx)
	W25 Peatland (xx)	W314 reed-fen & pools (xx)

(*) Number of species within each habitat ‘trait’ in Pantheon database

Evaluation Criteria

2.20 The invertebrate assemblage is valued according to the CIEEM (2018 v1.3) Ecological Impact Assessment Guidelines on a geographical frame of reference, at either a Zone of Influence, Local/Parish, District, County, Regional, National, European or International level.

3. ECOLOGICAL BASELINE

Desktop Study

Records From TVERC

3.1 A summary of more relevant invertebrate records returned by TVERC in 2024 follows.

3.2 There are no records returned for the Site but those within 2km include relatively few records except from one of two locations. For example, there is a cluster of records from Dinton Pastures to the northeast and Whiteknights to the north of the Site.

3.3 The exception to this is records of Stag Beetle which are numerous.

3.4 There is a 2020 record of White-clawed Crayfish to the east of the Site.

3.5 The emerging Berkshire LNRS includes White-clawed Crayfish as a priority species with reference to their presence in Barkham Brook. This is within 500m of the Site to the northeast, north of the M4.

3.6 There are records of two species of mollusc but these are close to the Site boundary. These are Fine-lined Pea Mussel from 2000/1 within 1km to the northeast and Lagoon Spire Snail from 2008 within 500m to the southwest. These are both S41 Priority Species.

3.7 The Fine-lined Pea Mussel is NS has frequent records in central southern England in the Oxford-Reading area (with reference to NBN Atlas).

3.8 The Lagoon Spire Snail is Nationally Rare with very few records on NBN Atlas. This was from the Reading Science Park disused reservoir. The origin of this is unknown as the only other population is in coastal marsh on Thorney Island in Hampshire.

3.9 There are a number of butterfly records but most relate to one or two locations.

Field Survey Results

Invertebrate Assemblage

3.10 A total of 852 species of invertebrate were recorded across the Site in 2022/23 (see list in **Table A1.1** in **Appendix 1**).

3.11 **Table 3.1** lists the 25 species recorded which have a conservation designation at some level.

Table 3.1: Species recorded with a conservation designation

Species	Family	Order	Conservation status
Ballus chalybeius	Salticidae	Araneae	NS
Marpissa muscosa	Salticidae	Araneae	NS
Episinus maculipes	Theridiidae	Araneae	NS
Theridiosoma gemmosum	Theridiosomatidae	Araneae	NS
Rhagonycha lutea	Cantharidae	Coleoptera	NS

Bembidion octomaculatum	Carabidae	Coleoptera	NS
Longitarsus symphyti	Chrysomelidae	Coleoptera	NS
Lythraria salicariae	Chrysomelidae	Coleoptera	NS
Opilo mollis	Cleridae	Coleoptera	NS
Gymnetron villosulum	Curculionidae	Coleoptera	[Nb]
Polydrusus formosus	Curculionidae	Coleoptera	[Na]
Rhinocyllus conicus	Curculionidae	Coleoptera	[Nb]
Abdera flexuosa	Melandryidae	Coleoptera	NS
Mordellistena neuwaldeggiana	Mordellidae	Coleoptera	NS
Eulagius filicornis	Mycetophagidae	Coleoptera	DD (European)
Platypus cylindrus	Platypodidae	Coleoptera	[Nb]
Silvanus bidentatus	Silvanidae	Coleoptera	Nb
Synchita separanda	Zopheridae	Coleoptera	NS
Helius pallirostris	Limoniidae	Diptera	Notable
Cicadula flori	Cicadellidae	Hemiptera	Nb
Iassus scutellaris	Cicadellidae	Hemiptera	Na
Andrena florea	Andrenidae	Hymenoptera	[RDB 3]
Lasius brunneus	Formicidae	Hymenoptera	Na
Macropis europaea	Melittidae	Hymenoptera	Na
*Tyria jacobaeae (*Cinnabar*)*	Erebidae	Lepidoptera	Section 41 Priority Species - research only

3.12 The pockets of floodplain fen supported a diverse assemblage with nationally scarce taxa including the sedge feeding leafhopper *Cicadula flori*. Yellow Loosestrife was host to the Loosestrife Bee *Macropis europaea* and the flea beetle *Lythraria salicariae*. The ray spider *Theridiosoma gemmosum* and the beautiful and very local *Araneus marmoreus* var *pyramidatus* were frequent in the sedge beds. Comfrey supported the scarce flea beetle *Longitarsis symphyti* and the flowers were home to *Meligethes symphyti*; both recently discovered species in Britain.

3.13 Standing shaded water yielded the Carabid beetle *Bembidion octomaculatum* which may be the first for Berkshire of a species extinct in UK for over a Century which his now spreading back: presumably from a new wave of immigration.

Habitat Assessment using Pantheon

3.14 The habitats within the Site are shown on **Map 11.7.2**. Whilst the majority of the land is under intensive agriculture with large fields of arable or grassland crops, there is also a mosaic of woodland and wetland habitats, particularly along the River Loddon riparian corridor and these are highlighted as having the potential to support invertebrate assemblages of higher importance (see **Map 11.7.3**).

3.15 **Table 3.2** shows the scores generated by Pantheon from sampling invertebrates (see Evaluation Methodology above).

Table 3.2: SAT Scores for Habitat Elements

Code	SAT	No. of species	Reported condition
A212	bark & sapwood decay	46	Favourable (46 species, 19 required)
A213	fungal fruiting bodies	9	Favourable (9 species, 8 required)
A211	heartwood decay	7	Favourable (7 species, 6 required)
F001	scrub edge	15	Favourable (15 species, 11 required)
F002	rich flower resource	13	Unfavourable (13 species, 15 required)
F003	scrub-heath & moorland	7	Unfavourable (7 species, 9 required)
W314	reed-fen & pools	4	Unfavourable (4 species, 11 required)
F111	bare sand & chalk	3	Unfavourable (3 species, 19 required)
A215	epiphyte fauna	2	Unfavourable (2 species, 3 required)
F112	open short sward	2	Unfavourable (2 species, 13 required)
W211	open water on disturbed mineral sediments	2	Unfavourable (2 species, 6 required)
W221	undisturbed fluctuating marsh	2	Unfavourable (2 species, 4 required)

3.16 Using the Pantheon programme to analyse the survey data, 12 SATs were represented on the Site, with four of the assemblages in Favourable condition, those associated with bark & sapwood decay, fungal fruiting bodies, heartwood decay and scrub edge.

Description of Habitat Typically Supporting the Assemblage

3.17 To provide context, a summary description from the Pantheon website of the habitat typically supporting the assemblage follows for each of the assemblages in Favourable condition.

A212 bark & sapwood decay

3.18 The assemblage type is found in and around trees and shrubs generally, but especially in older specimens. The assemblage is primarily associated with death and decay of the outer woody tissues of the trees or shrubs - the sapwood and bark.

3.19 This assemblage type is mainly characterised by beetles.

A213 fungal fruiting bodies

3.20 The assemblage type is found in and around trees and shrubs generally, but especially in older specimens. A large variety of wood-decay fungi are active in all types of woody tissues from heartwood through to twigs and roots. All produce fruiting bodies on the outside of the decaying wood and above ground, which are exploited by this assemblage type.

3.21 This assemblage type is mainly characterised by beetles, limonid craneflies and platypezid flies.

A211 heartwood decay

3.22 The assemblage type is found in and around mature and ancient trees and shrubs.

3.23 This assemblage type is mainly characterised by beetles and two-winged flies.

F001 scrub edge

3.24 The assemblage type is found where scrub or woodland grades into or is interspersed with open areas of grassland, heathland or early successional vegetation types. The juxtaposition of open vegetation with woody development is important to insects with complex life cycles that require different microhabitats at different stages of development.

3.25 This assemblage type is characterised by a wide range of invertebrates but especially aculeates (ants, bees and wasps).

White-clawed Crayfish

3.26 All water samples collected during the eDNA returned negative results for the presence of White-clawed Crayfish (**Annex 4**). Sample locations are shown on **Map 11.7.4**.

3.27 The habitat assessment determined that the upper section of the Barkham Brook (sections 1-3 in **Table 3.3**) had extensive root tangles trailing into the water column from the margins. These are highly favoured by White-clawed crayfish.

3.28 The presence of Bullhead *Cottus gobio*, and a good mix of other invertebrates including large numbers of gammarids and numerous larvae of *Calopteryx* indicate that the water quality is currently good.

3.29 The middle section (sections 4-6) also locally had extensive root tangles trailing into the water column from the margins and overhanging banks providing shelter which are also habitats favoured by White-clawed crayfish.

3.30 The lower reaches (sections 7-9) have a different character with deeper silty substrate dense emergent vegetation in the unshaded areas which are considered to be of low suitability to support White-clawed Crayfish.

3.31 The environmental conditions and species recorded are summarised in **Table 3.3** below and photos of each sample stations are shown in **Annex 5.**

Table 3.3. White-clawed Crayfish Habitat Assessment - Environmental conditions and Invertebrate records, 28.5.2025

	Barkham Brook East 1	Barkham Brook East 2	Barkham Brook East 3	Barkham Brook middle 4	Barkham Brook middle 5	Barkham Brook middle 6	Barkham Brook North 7 Road bridge	Barkham Brook north 8	Barkham Brook north 9 footbridge
Grid reference	SU76606815	SU76636821	SU76646835	SU76586843	SU76436867	SU76436867	SU76066915	SU75966925	SU76066915
Environmental variables									
flow rate	high	moderate	moderate	moderate	moderate	moderate	low	low	low
max depth (cm)	50	70	70	60	70	80	>100	>100	90
bank profile	steep	moderate	steep	steep	steep	steep	steep	steep	steep
Shade (%)	95	90	90	90	95	90	20	10	70
Grazing (%)	0	0	0	0	0	0	0	0	0
Emergent plant cover (%)	0	0	10	0	0	0	80	100	0
Base clay (1-3)	1	2	1	2	3	3	3	3	3
Base gravel (1-3)	2	1	1	1	0	0	0	0	0
Submerged root tangles present	y	y	y	y		y			y
Adjacent field land use	pasture	arable/pasture	pasture	pasture	pasture	pasture	pasture (cattle)	pasture (cattle)	pasture (cattle)
Calopterygidae	1	1	1	1	1	1	1	1	1
Libellulidae		1							
Polycentropidae	1	1	1	1	1	1			1
Gammaridae	1	1	1	1	1	1	1	1	1

Coenagrionidae							1		
Gerridae							1		
Haliplidae					1		1	1	
Hydrophilidae/Hydraenidae							1	1	
Elmidae	1								
Hydropsychidae				1					
Planariidae/Dugesiidae		1					1		
Baetidae									
Sialidae								1	
Hydrobiidae/Bithinidae									
Lymnaeidae							1	1	
Glossophonidae		1						1	
Erpobdellidae									
Asellidae	1	1	1	1	1	1	1		
Chironomidae	1	1	1	1	1	1	1	1	1
Oligochaeta	1	1	1	1	1	1	1	1	1
White clawed crayfish suitability	**high**	**high**	**high**	**moderate**	**moderate**	**moderate**	**low**	**low**	**low**
Other observations									
Bullhead		1	1						
Three-spined stickleback	1	1	1					1	
Otter spraint		1							

4. EVALUATION

Invertebrate Assemblage

4.1 852 species have been recorded, 25 of which have some conservation status.

4.2 The principal Habitat association is with various elements of 'Decaying wood', in particular, Pantheon scores the assemblages associated with A212 bark & sapwood decay, A213 fungal fruiting bodies and A211 heartwood decay as being in Favourable condition.

4.3 Otherwise, the assemblage associated with F001 scrub edge is also Favourable.

4.4 Overall, the invertebrate assemblage within the ZoI is judged to be of no more than **Local** importance.

4.5 In the absence of the Proposals, it is likely that the conservation status of the invertebrate assemblage within the potential ZoI would remain unfavourable and declining.

4.6 Unfavourable, since it is likely that the invertebrate assemblage will continue to be supported by the unfavourably managed habitats within the intensively managed farmland, both of which do not benefit invertebrates; and

4.7 Declining, since species diversity and population abundance is likely to continue to decline in line with national and regional trends. Even in the absence of the Proposals the trends are likely to continue.

White-clawed Crayfish

4.8 The results of the eDNA surveys indicate the White-clawed Crayfish are likely absent from Site, despite the presence of suitable habitats at the upstream sections of Barkham Brook.

4.9 Given their known population within the local watercourse network they are included within this impact assessment on a precautionary basis. The White-clawed Crayfish population is therefore considered to be of **Local** importance, whilst the conservation status is considered to be unfavourable and declining given the numerous challenges facing the species.

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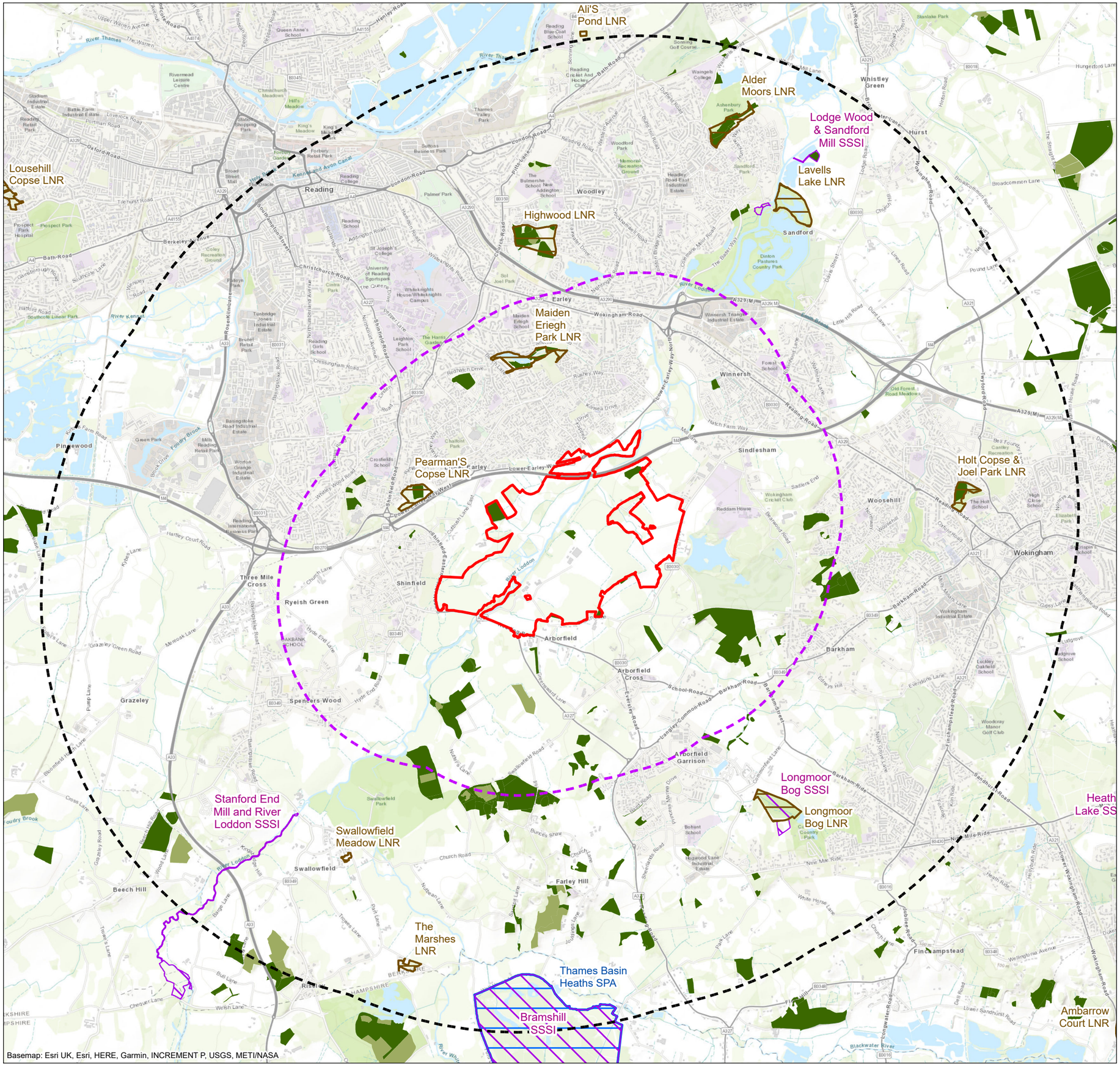

MAP 11.7.1 Site Location & Nature Conservation Designations

KEY

- Site boundary
- 2km linear distance from site boundary
- 5km linear distance from site boundary

Statutory Sites

- Special Protection Areas (SPA)
- Sites of Special Scientific Interest (SSSI)
- Local Nature Reserves (LNR)

Natural England's Provisional Ancient Woodland Inventory

- Ancient & Semi-Natural Woodland
- Ancient Replanted Woodland

SCALE: 1:47,500 at A3

0 500 1,000 1,500 2,000 Metres

N

EPR

CLIENT: University of Reading

PROJECT: Loddon Garden Village

DATE: 01 August 2025

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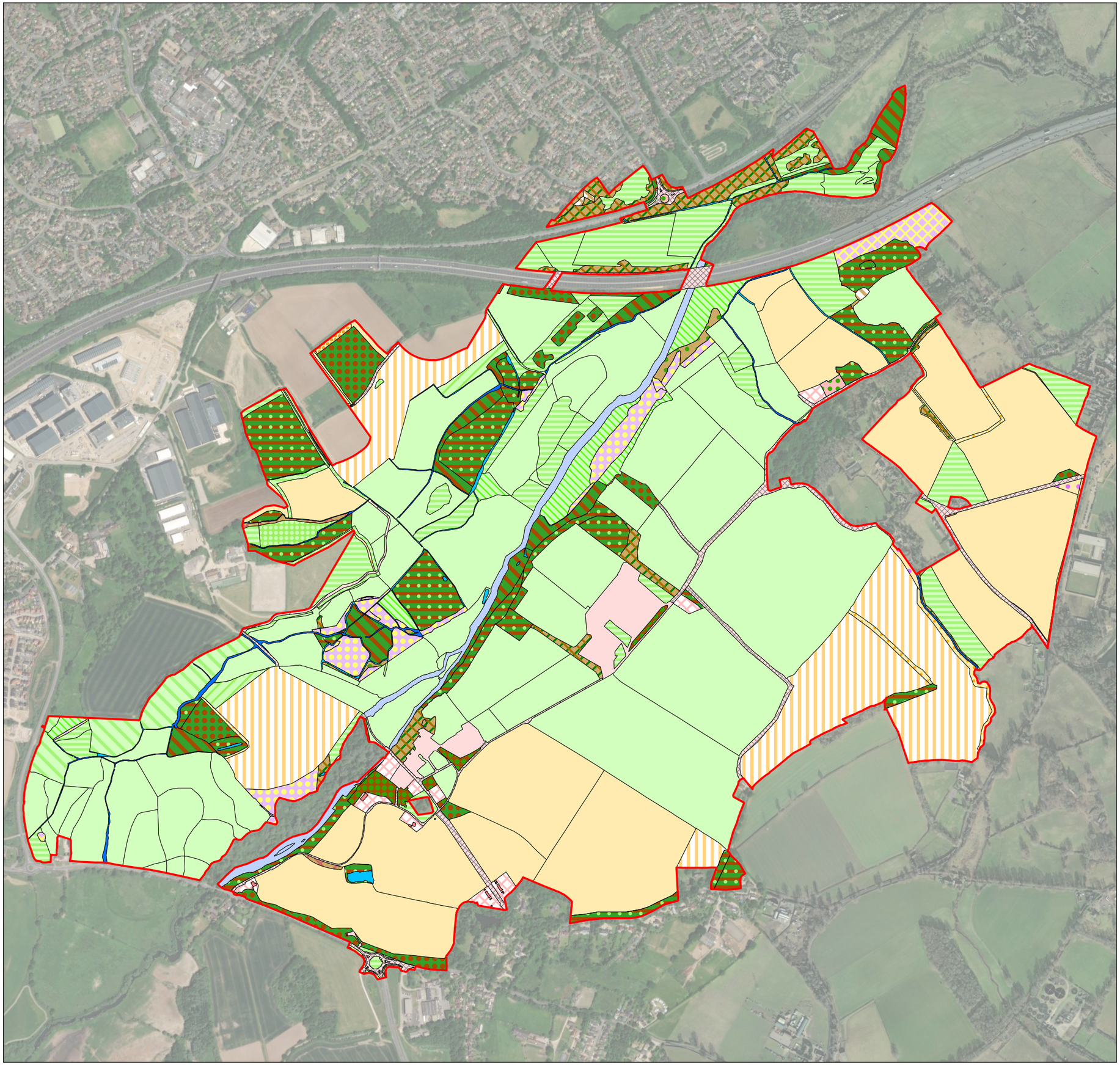

MAP 11.7.2 UK Habitat Classification

KEY

- Site boundary
- c1a - Arable field margins
- c1a5 - Arable field margins – tussocky
- c1a6 - Arable field margins – pollen and nectar
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- f2b - Purple moor-grass and rush pastures
- f2e - Reedbeds
- f2f - Other wetlands
- g3a - Lowland meadows
- g3c - Other neutral grassland
- g3c5 - Arrhenatherum neutral grassland
- g3c7 - Deschampsia neutral grassland
- g3c8 - Holcus-Juncus neutral grassland
- g4 - Modified grassland
- h3 - Dense scrub
- h3a - Blackthorn scrub
- h3a6 - Other blackthorn scrub
- h3d - Bramble scrub
- h3h - Mixed scrub
- h3j - Willow scrub
- r1g - Other standing water
- r2a - Rivers (priority habitat)
- r2b - Other rivers and streams
- u1 - Built-up areas and gardens
- u1b - Developed land, sealed surface
- u1b5 - Buildings
- u1b6 - Other developed land
- u1c - Artificial unvegetated, unsealed surface
- u1f - Sparsely vegetated urban land
- w - Woodland and forest
- w1d - Wet woodland
- w1f - Lowland mixed deciduous woodland
- w1f7 - Other lowland mixed deciduous woodland
- w1g - Other broadleaved woodland
- w1h - Other woodland, mixed

SCALE: 1:11,000 at A3

0 100 200 300 400 500 Metres

N

EPR

CLIENT: University of Reading

PROJECT: Loddon Garden Village

DATE: 01 August 2025

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Aerial Image: Maxar, Microsoft

MAP 11.7.3 Invertebrate Habitats

KEY

- Site boundary
- Areas with high quality habitats
- Super hotspots

SCALE: 1:9,000 at A3

0 100 200 300 400 500 Metres

N

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DATE: 01 August 2025

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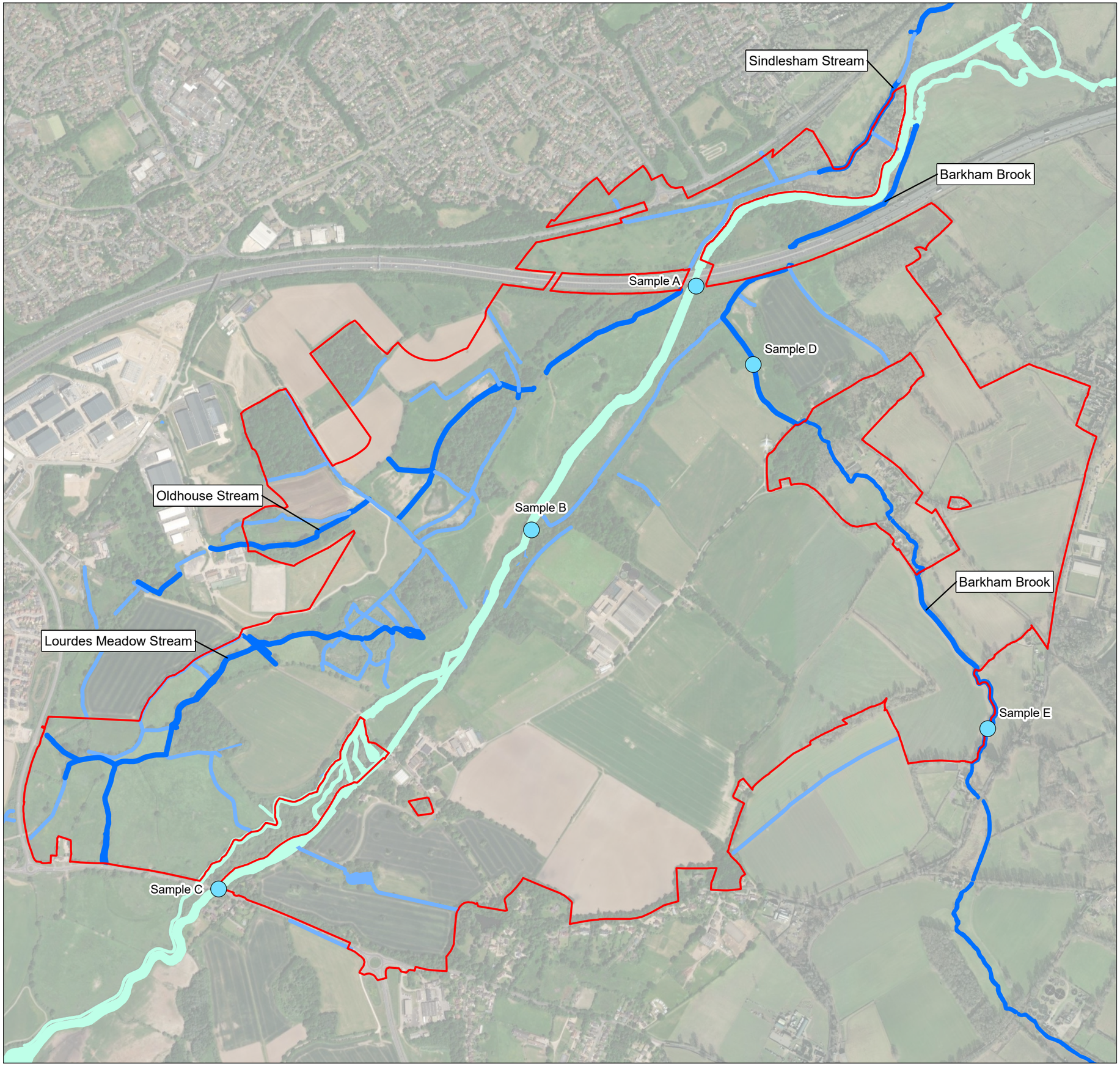
Aerial Image: Maxar, Microsoft



MAP 11.7.4 White-clawed Crayfish eDNA Locations

KEY

- Site boundary
- eDNA samples collected - negative
- r1g Other standing water - 50 Ditches
- r2b Other rivers and streams
- r2a Rivers (priority habitat)

SCALE: 1:11,000 at A3

0 100 200 300 400 500 Metres

N

EPR

CLIENT: University of Reading

PROJECT: Loddon Garden Village

DATE: 01 August 2025

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P23/42

Aerial Image Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Annex 1
Invertebrate Species Lists

Table A1.1 Invertebrates recorded at Loddon Garden Village in 2022/23

Species	Family	Order	Conservation status
Pacifastacus leniusculus	Astarcidae	Amphipoda	Naturalised alien
Crangonyx pseudogracilis	Gammaridae	Amphipoda	common
Gammarus pulex sens. lato	Gammaridae	Amphipoda	common
Agelena labyrinthica	Agelenidae	Araneae	common
Amaurobius fenestralis	Amaurobiidae	Araneae	common
Amaurobius similis	Amaurobiidae	Araneae	common
Anyphaena accentuata	Anyphaenidae	Araneae	common
Araneus diadematus	Araneidae	Araneae	common
Araneus marmoreus var pyramidatus	Araneidae	Araneae	local
Araneus quadratus	Araneidae	Araneae	local
Araniella opisthographa	Araneidae	Araneae	common
Gibbaranea gibbosa	Araneidae	Araneae	common
Larinioides cornutus	Araneidae	Araneae	common
Mangora acalypha	Araneidae	Araneae	common
Neoscona adianta	Araneidae	Araneae	local
Nuctenea umbratica	Araneidae	Araneae	common
Zilla diodia	Araneidae	Araneae	local
Zygiella atrica	Araneidae	Araneae	common
Zygiella x-notata	Araneidae	Araneae	common
Clubiona brevipes	Clubionidae	Araneae	common
Clubiona comta	Clubionidae	Araneae	common
Clubiona phragmitis	Clubionidae	Araneae	local
Clubiona reclusa	Clubionidae	Araneae	common
Dictyna uncinata	Dictynidae	Araneae	common
Lathys humilis	Dictynidae	Araneae	common
Nigma walckenaeri	Dictynidae	Araneae	local
Harpactea hombergi	Dysderidae	Araneae	common
Bathyphantes gracilis	Linyphiidae	Araneae	common
Dismodicus bifrons	Linyphiidae	Araneae	common
Erigone atra	Linyphiidae	Araneae	common
Erigone dentipalpis	Linyphiidae	Araneae	common
Hypomma bituberculatum	Linyphiidae	Araneae	common
Hypomma cornutum	Linyphiidae	Araneae	common
Linyphia triangularis	Linyphiidae	Araneae	common
Lophomma punctatum	Linyphiidae	Araneae	common
Monocephalus fuscipes	Linyphiidae	Araneae	common

Species	Family	Order	Conservation status
Neriene peltata	Linyphiidae	Araneae	common
Tenuiphantes tenuis	Linyphiidae	Araneae	common
Pardosa pullata	Lycosidae	Araneae	common
Pirata piraticus	Lycosidae	Araneae	common
Trochosa terricola	Lycosidae	Araneae	common
Philodromus albidus	Philodromidae	Araneae	common
Philodromus cespitum	Philodromidae	Araneae	common
Philodromus dispar	Philodromidae	Araneae	common
Tibellus oblongus	Philodromidae	Araneae	common
Pisaura mirabilis	Pisauridae	Araneae	common
Ballus chalybeius	Salticidae	Araneae	NS
Marpissa muscosa	Salticidae	Araneae	NS
Segestria senoculata	Segestriidae	Araneae	common
Metellina mengei	Tetragnathidae	Araneae	common
Metellina segmentata	Tetragnathidae	Araneae	common
Pachygnatha degeeri	Tetragnathidae	Araneae	common
Tetragnatha extensa	Tetragnathidae	Araneae	common
Tetragnatha montana	Tetragnathidae	Araneae	common
Anelosimus vittatus	Theridiidae	Araneae	common
Enoplognatha ovata	Theridiidae	Araneae	common
Episinus maculipes	Theridiidae	Araneae	NS
Paidiscura pallens	Theridiidae	Araneae	common
Phylloneta sisyphia	Theridiidae	Araneae	common
Platnickina tincta	Theridiidae	Araneae	local
Theridiosoma gemmosum	Theridiosomatidae	Araneae	NS
Misumena vatia	Thomisidae	Araneae	common
Ozyptila praticola	Thomisidae	Araneae	common
Xysticus cristatus	Thomisidae	Araneae	common
Zora spinimana	Zoridae	Araneae	common
Anobium fulvicorne	Anobiidae	Coleoptera	local
Anobium inexspectatum	Anobiidae	Coleoptera	NS
Anobium punctatum	Anobiidae	Coleoptera	common
Ochina ptinoides	Anobiidae	Coleoptera	local
Ptilinus pectinicornis	Anobiidae	Coleoptera	common
Xestobium rufovillosum	Anobiidae	Coleoptera	local
Anthicus antherinus	Anthicidae	Coleoptera	common
Omonadus floralis	Anthicidae	Coleoptera	common
Aphodius ater	Aphodiidae	Coleoptera	common
Aphodius contaminatus	Aphodiidae	Coleoptera	common
Aphodius fossor	Aphodiidae	Coleoptera	common
Aphodius rufipes	Aphodiidae	Coleoptera	common
Aphodius sphacelatus	Aphodiidae	Coleoptera	common

Species	Family	Order	Conservation status
Apion frumentarium	Apionidae	Coleoptera	common
Eutrichapion ervi	Apionidae	Coleoptera	common
Exapion ulicis	Apionidae	Coleoptera	common
Ischnopterapion loti	Apionidae	Coleoptera	common
Perapion violaceum	Apionidae	Coleoptera	common
Protapion apricans	Apionidae	Coleoptera	common
Protapion fulvipes	Apionidae	Coleoptera	common
Agrilus laticornis	Buprestidae	Coleoptera	local
Agrilus sinuatus	Buprestidae	Coleoptera	common
Cantharis cryptica	Cantharidae	Coleoptera	common
Cantharis decipiens	Cantharidae	Coleoptera	common
Cantharis lateralis	Cantharidae	Coleoptera	common
Cantharis livida	Cantharidae	Coleoptera	common
Cantharis nigra (=thoracica) red scutellum	Cantharidae	Coleoptera	common
Cantharis nigricans	Cantharidae	Coleoptera	common
Cantharis rustica	Cantharidae	Coleoptera	common
Crudosilis ruficollis	Cantharidae	Coleoptera	common
Malthinus flaveolus	Cantharidae	Coleoptera	common
Malthinus seriepunctatus	Cantharidae	Coleoptera	common
Malthodes marginatus	Cantharidae	Coleoptera	common
Malthodes minimus	Cantharidae	Coleoptera	common
Rhagonycha fulva	Cantharidae	Coleoptera	common
Rhagonycha lignosa	Cantharidae	Coleoptera	common
Rhagonycha lutea	Cantharidae	Coleoptera	NS
Abax parallelepipedus	Carabidae	Coleoptera	common
Acupalpus dubius	Carabidae	Coleoptera	common
Amara familiaris	Carabidae	Coleoptera	common
Anchomenus dorsalis	Carabidae	Coleoptera	common
Badister bullatus	Carabidae	Coleoptera	common
Bembidion biguttatum	Carabidae	Coleoptera	common
Bembidion lampros	Carabidae	Coleoptera	common
Bembidion octomaculatum	Carabidae	Coleoptera	NS
Bembidion tetracolum	Carabidae	Coleoptera	common
Calodromius spilotus	Carabidae	Coleoptera	common
Carabus granulatus	Carabidae	Coleoptera	local
Demetrias atricapillus	Carabidae	Coleoptera	common
Dromius quadrimaculatus	Carabidae	Coleoptera	common
Harpalus affinis	Carabidae	Coleoptera	common
Harpalus rufipes	Carabidae	Coleoptera	common
Nebria brevicollis	Carabidae	Coleoptera	common
Notiophilus biguttatus	Carabidae	Coleoptera	common
Notiophilus substriatus	Carabidae	Coleoptera	common

Species	Family	Order	Conservation status
Olisthopus rotundatus	Carabidae	Coleoptera	common
Oxypselaphus obscurus	Carabidae	Coleoptera	common
Paradromius linearis	Carabidae	Coleoptera	common
Paranchus albipes	Carabidae	Coleoptera	common
Philorhizus melanocephalus	Carabidae	Coleoptera	common
Pterostichus madidus	Carabidae	Coleoptera	common
Stenolophus mixtus	Carabidae	Coleoptera	local
Trechus quadristriatus	Carabidae	Coleoptera	common
Clytus arietis	Cerambycidae	Coleoptera	common
Grammoptera ruficornis	Cerambycidae	Coleoptera	common
Phymatodes testaceus	Cerambycidae	Coleoptera	local
Pseudovadonia livida	Cerambycidae	Coleoptera	common
Pyrrhidium sanguineum	Cerambycidae	Coleoptera	local
Rutpela maculata	Cerambycidae	Coleoptera	common
Agelastica alni	Chrysomelidae	Coleoptera	common
Altica lythri	Chrysomelidae	Coleoptera	common
Bruchidius varius	Chrysomelidae	Coleoptera	common
Bruchus loti	Chrysomelidae	Coleoptera	common
Bruchus rufimanus	Chrysomelidae	Coleoptera	common
Bruchus rufipes	Chrysomelidae	Coleoptera	common
Cassida viridis	Chrysomelidae	Coleoptera	common
Crepidodera aurata	Chrysomelidae	Coleoptera	common
Crepidodera aurea	Chrysomelidae	Coleoptera	common
Crepidodera fulvicornis	Chrysomelidae	Coleoptera	common
Cryptocephalus pusillus	Chrysomelidae	Coleoptera	common
Donacia simplex	Chrysomelidae	Coleoptera	common
Epitrix pubescens	Chrysomelidae	Coleoptera	common
Galerucella calmariensis	Chrysomelidae	Coleoptera	common
Galerucella lineola	Chrysomelidae	Coleoptera	common
Galerucella nymphaeae	Chrysomelidae	Coleoptera	local
Gastrophysa viridula	Chrysomelidae	Coleoptera	common
Hermaeophaga mercurialis	Chrysomelidae	Coleoptera	common
Lochmaea crataegi	Chrysomelidae	Coleoptera	common
Longitarsus rubiginosus	Chrysomelidae	Coleoptera	common
Longitarsus symphyti	Chrysomelidae	Coleoptera	NS
Lythraria salicariae	Chrysomelidae	Coleoptera	NS
Neocrepidodera ferruginea	Chrysomelidae	Coleoptera	common
Neocrepidodera transversa	Chrysomelidae	Coleoptera	common
Phaedon tumidulus	Chrysomelidae	Coleoptera	common
Phratora laticollis	Chrysomelidae	Coleoptera	common
Phratora vulgatissima	Chrysomelidae	Coleoptera	common
Phyllotreta atra	Chrysomelidae	Coleoptera	common

Species	Family	Order	Conservation status
Phyllotreta nemorum	Chrysomelidae	Coleoptera	common
Plagiodera versicolora	Chrysomelidae	Coleoptera	common
Psylliodes affinis	Chrysomelidae	Coleoptera	common
Psylliodes chrysocephala	Chrysomelidae	Coleoptera	common
Cis boleti	Ciidae	Coleoptera	common
Cis pygmaeus	Ciidae	Coleoptera	local
Ennearthron cornutum	Ciidae	Coleoptera	common
Octotemnus glabriculus	Ciidae	Coleoptera	common
Orthocis alni	Ciidae	Coleoptera	local
Opilo mollis	Cleridae	Coleoptera	NS
Anisosticta novemdecimpunctata	Coccinellidae	Coleoptera	local
Coccidula rufa	Coccinellidae	Coleoptera	common
Coccinella septempunctata	Coccinellidae	Coleoptera	common
Harmonia axyridis	Coccinellidae	Coleoptera	common
Propylea quattuordecimpunctata	Coccinellidae	Coleoptera	common
Rhyzobius chrysomeloides	Coccinellidae	Coleoptera	common
Rhyzobius litura	Coccinellidae	Coleoptera	common
Subcoccinella vigintiquattuorpunctata	Coccinellidae	Coleoptera	common
Tytthaspis sedecimpunctata	Coccinellidae	Coleoptera	common
Corylophus cassidoides	Corylophidae	Coleoptera	common
Atomaria mesomela	Cryptophagidae	Coleoptera	local
Cryptophagus dentatus	Cryptophagidae	Coleoptera	common
Ephistemus globulus	Cryptophagidae	Coleoptera	common
Micrambe ulicis	Cryptophagidae	Coleoptera	common
Telmatophilus caricis	Cryptophagidae	Coleoptera	local
Acalles misellus	Curculionidae	Coleoptera	common
Amalus scortillum	Curculionidae	Coleoptera	local
Anthonomus pedicularius	Curculionidae	Coleoptera	common
Anthonomus rubi	Curculionidae	Coleoptera	common
Archarius pyrrhoceras	Curculionidae	Coleoptera	common
Archarius salicivorus	Curculionidae	Coleoptera	common
Ceutorhynchus erysimi	Curculionidae	Coleoptera	common
Ceutorhynchus obstrictus	Curculionidae	Coleoptera	common
Ceutorhynchus pallidactylus	Curculionidae	Coleoptera	common
Curculio glandium	Curculionidae	Coleoptera	common
Datonychus melanostictus	Curculionidae	Coleoptera	common
Dryocoetes villosus	Curculionidae	Coleoptera	local
Euophryum confine	Curculionidae	Coleoptera	common
Gymnetron villosulum	Curculionidae	Coleoptera	[Nb]
Hypera plantaginis	Curculionidae	Coleoptera	common
Hypera pollux	Curculionidae	Coleoptera	local
Hypera rumicis	Curculionidae	Coleoptera	common

Species	Family	Order	Conservation status
Magdalis armigera	Curculionidae	Coleoptera	local
Mecinus pascuorum	Curculionidae	Coleoptera	common
Nedyus quadrimaculatus	Curculionidae	Coleoptera	common
Orchestes fagi	Curculionidae	Coleoptera	common
Orchestes pilosus	Curculionidae	Coleoptera	common
Orchestes signifer	Curculionidae	Coleoptera	common
Otiorhynchus sulcatus	Curculionidae	Coleoptera	common
Phyllobius glaucus	Curculionidae	Coleoptera	common
Phyllobius pyri	Curculionidae	Coleoptera	common
Phyllobius roboretanus	Curculionidae	Coleoptera	common
Polydrusus formosus	Curculionidae	Coleoptera	[Na]
Rhinocyllus conicus	Curculionidae	Coleoptera	[Nb]
Rhinoncus leucostigma	Curculionidae	Coleoptera	common
Rhinoncus perpendicularis	Curculionidae	Coleoptera	common
Scolytus intricatus	Curculionidae	Coleoptera	common
Scolytus multistriatus	Curculionidae	Coleoptera	local
Sitona hispidulus	Curculionidae	Coleoptera	common
Sitona lineatus	Curculionidae	Coleoptera	common
Tychius picirostris	Curculionidae	Coleoptera	common
Agabus bipustulatus	Dytiscidae	Coleoptera	common
Agabus paludosus	Dytiscidae	Coleoptera	common
Hydroporus memnonius	Dytiscidae	Coleoptera	common
Hydroporus palustris	Dytiscidae	Coleoptera	common
Hydroporus planus	Dytiscidae	Coleoptera	common
Hydroporus pubescens	Dytiscidae	Coleoptera	common
Ilybius fuliginosus	Dytiscidae	Coleoptera	common
Platambus maculatus	Dytiscidae	Coleoptera	common
Agriotes acuminatus	Elateridae	Coleoptera	common
Agriotes sputator	Elateridae	Coleoptera	common
Athous haemorrhoidalis	Elateridae	Coleoptera	common
Dalopius marginatus	Elateridae	Coleoptera	common
Kibunea minuta	Elateridae	Coleoptera	common
Melanotus castanipes	Elateridae	Coleoptera	common
Panspaeus guttatus	Elateridae	Coleoptera	local
Elmis aenea	Elmidae	Coleoptera	common
Notaris acridulus	Erirhinidae	Coleoptera	local
Anoplotrupes stercorosus	Geotrupidae	Coleoptera	common
Geotrupes spiniger	Geotrupidae	Coleoptera	common
Gyrinus substriatus	Gyrinidae	Coleoptera	common
Haliplus fluviatilis	Haliplidae	Coleoptera	common
Haliplus lineatocollis	Haliplidae	Coleoptera	common
Heterocerus fenestratus	Heteroceridae	Coleoptera	common

Species	Family	Order	Conservation status
Dendrophilus punctatus	Histeridae	Coleoptera	local
Limnebius truncatellus	Hydraenidae	Coleoptera	common
Ochthebius minimus	Hydraenidae	Coleoptera	common
Cercyon analis	Hydrophilidae	Coleoptera	common
Cercyon convexiusculus	Hydrophilidae	Coleoptera	local
Cercyon haemorrhoidalis	Hydrophilidae	Coleoptera	common
Cercyon melanocephalus	Hydrophilidae	Coleoptera	common
Cercyon lateralis	Hydrophilidae	Coleoptera	common
Cercyon pygmaeus	Hydrophilidae	Coleoptera	common
Cercyon sternalis	Hydrophilidae	Coleoptera	local
Cryptopleurum minutum	Hydrophilidae	Coleoptera	common
Cryptopleurum subtile	Hydrophilidae	Coleoptera	common
Dactylosternum abdominale	Hydrophilidae	Coleoptera	local
Helophorus brevipalpis	Hydrophilidae	Coleoptera	common
Megasternum concinnum	Hydrophilidae	Coleoptera	common
Sphaeridium scarabaeoides	Hydrophilidae	Coleoptera	common
Brachypterus glaber	Kateretidae	Coleoptera	common
Brachypterus urticae	Kateretidae	Coleoptera	common
Kateretes pusillus	Kateretidae	Coleoptera	common
Cartodere nodifer	Latridiidae	Coleoptera	common
Cortinicara gibbosa	Latridiidae	Coleoptera	common
Dorcus parallelipipedus	Lucanidae	Coleoptera	common
Axinotarsus marginalis	Malachiidae	Coleoptera	common
Cordylepherus viridis	Malachiidae	Coleoptera	common
Malachius bipustulatus	Malachiidae	Coleoptera	common
Abdera flexuosa	Melandryidae	Coleoptera	NS
Conopalpus testaceus	Melandryidae	Coleoptera	local
Monotoma picipes	Monotomidae	Coleoptera	local
Mordellistena neuwaldeggiana	Mordellidae	Coleoptera	NS
Eulagius filicornis	Mycetophagidae	Coleoptera	DD (European)
Mycetophagus quadripustulatus	Mycetophagidae	Coleoptera	local
Nanophyes marmoratus	Nanophyidae	Coleoptera	common
Epuraea aestiva	Nitidulidae	Coleoptera	common
Meligethes aeneus	Nitidulidae	Coleoptera	common
Meligethes ruficornis	Nitidulidae	Coleoptera	common
Meligethes symphyti	Nitidulidae	Coleoptera	local
Pria dulcamarae	Nitidulidae	Coleoptera	common
Oedemera lurida	Oedemeridae	Coleoptera	common
Oedemera nobilis	Oedemeridae	Coleoptera	common
Olibrus aeneus	Phalacridae	Coleoptera	common
Stilbus testaceus	Phalacridae	Coleoptera	common
Platypus cylindrus	Platypodidae	Coleoptera	[Nb]

Species	Family	Order	Conservation status
Acrotrichis danica	Ptiliidae	Coleoptera	common
Acrotrichis fascicularis	Ptiliidae	Coleoptera	common
Pyrochroa serraticornis	Pyrochroidae	Coleoptera	common
Neocoenorrhinus aequatus	Rhynchitidae	Coleoptera	common
Salpingus planirostris	Salpingidae	Coleoptera	common
Aphodius ater	Scarabaeidae	Coleoptera	common
Aphodius contaminatus	Scarabaeidae	Coleoptera	common
Aphodius fossor	Scarabaeidae	Coleoptera	common
Aphodius prodromus	Scarabaeidae	Coleoptera	common
Aphodius sphacelatus	Scarabaeidae	Coleoptera	common
Anaspis fasciata	Scraptiidae	Coleoptera	common
Anaspis frontalis	Scraptiidae	Coleoptera	common
Anaspis maculata	Scraptiidae	Coleoptera	common
Anaspis pulicaria	Scraptiidae	Coleoptera	common
Anaspis regimbarti	Scraptiidae	Coleoptera	common
Anaspis rufilabris	Scraptiidae	Coleoptera	common
Silpha atrata	Silphidae	Coleoptera	common
Psammoecus bipunctatus	Silvanidae	Coleoptera	local
Silvanus bidentatus	Silvanidae	Coleoptera	Nb
Silvanus unidentatus	Silvanidae	Coleoptera	local
Uleiota planatus	Silvanidae	Coleoptera	local
Aleochara lanuginosa	Staphylinidae	Coleoptera	common
Amischa analis	Staphylinidae	Coleoptera	common
Anotylus rugosus	Staphylinidae	Coleoptera	common
Anotylus sculpturatus	Staphylinidae	Coleoptera	common
Anotylus tetracarinatus	Staphylinidae	Coleoptera	common
Astenus lyonessius	Staphylinidae	Coleoptera	common
Atheta liturata	Staphylinidae	Coleoptera	common
Atheta vaga	Staphylinidae	Coleoptera	local
Autalia impressa	Staphylinidae	Coleoptera	common
Bisnius fimetarius	Staphylinidae	Coleoptera	common
Cilea silphoides	Staphylinidae	Coleoptera	local
Cypha longicornis	Staphylinidae	Coleoptera	common
Deinopsis erosa	Staphylinidae	Coleoptera	local
Drusilla canaliculata	Staphylinidae	Coleoptera	common
Gabrius breviventer	Staphylinidae	Coleoptera	common
Gabrius splendidulus	Staphylinidae	Coleoptera	common
Hygronoma dimidiata	Staphylinidae	Coleoptera	local
Lesteva longoeleytrata	Staphylinidae	Coleoptera	common
Lesteva sicula	Staphylinidae	Coleoptera	common
Lithocharis nigriceps	Staphylinidae	Coleoptera	common
Metopsia clypeata	Staphylinidae	Coleoptera	common

Species	Family	Order	Conservation status
Myllaena dubia	Staphylinidae	Coleoptera	common
Ocypus olens	Staphylinidae	Coleoptera	common
Ocyusa maura	Staphylinidae	Coleoptera	local
Oxytelus laqueatus	Staphylinidae	Coleoptera	common
Paederus riparius	Staphylinidae	Coleoptera	common
Philhygra volans	Staphylinidae	Coleoptera	local
Philonthus politus	Staphylinidae	Coleoptera	common
Philonthus quisquiliarius	Staphylinidae	Coleoptera	local
Philonthus varians	Staphylinidae	Coleoptera	common
Proteinus brachypterus	Staphylinidae	Coleoptera	common
Rugilus orbiculatus	Staphylinidae	Coleoptera	common
Stenus bifoveolatus	Staphylinidae	Coleoptera	common
Stenus boops	Staphylinidae	Coleoptera	common
Stenus brunnipes	Staphylinidae	Coleoptera	common
Stenus cicindeloides	Staphylinidae	Coleoptera	common
Stenus clavicornis	Staphylinidae	Coleoptera	common
Stenus impressus	Staphylinidae	Coleoptera	common
Stenus juno	Staphylinidae	Coleoptera	common
Stenus ossium	Staphylinidae	Coleoptera	common
Stenus pallipes	Staphylinidae	Coleoptera	local
Stenus similis	Staphylinidae	Coleoptera	common
Stenus tarsalis	Staphylinidae	Coleoptera	common
Sunius propinquus	Staphylinidae	Coleoptera	common
Tachinus rufipes	Staphylinidae	Coleoptera	common
Tachyporus chrysomelinus	Staphylinidae	Coleoptera	common
Tachyporus hypnorum	Staphylinidae	Coleoptera	common
Tachyporus pusillus	Staphylinidae	Coleoptera	common
Eledona agricola	Tenebrionidae	Coleoptera	common
Lagria hirta	Tenebrionidae	Coleoptera	common
Prionychus ater	Tenebrionidae	Coleoptera	local
Bitoma crenata	Zopheridae	Coleoptera	local
Synchita separanda	Zopheridae	Coleoptera	NS
Pacifastacus leniusculus	Astacidae	Decapoda	common
Forficula auricularia	Forficulidae	Dermaptera	common
Agromyza ferruginosa	Agromyzidae	Diptera	common
Phytomyza lappae	Agromyzidae	Diptera	common
Phytomyza spondylii	Agromyzidae	Diptera	common
Sylvicola cinctus	Anisopodidae	Diptera	common
Anthomyia liturata	Anthomyiidae	Diptera	common
Pegomya solennis	Anthomyiidae	Diptera	common
Pegoplata infirma	Anthomyiidae	Diptera	common
Machimus atricapillus	Asilidae	Diptera	common

Species	Family	Order	Conservation status
Leptogaster cylindrica	Asilidae	Diptera	common
Dilophus febrilis	Bibionidae	Diptera	common
Calliphora vicina	Calliphoridae	Diptera	common
Calliphora vomitoria	Calliphoridae	Diptera	common
Lucilia sericata	Calliphoridae	Diptera	common
Dasineura crataegi	Cecidomyiidae	Diptera	common
Dasineura fraxini	Cecidomyiidae	Diptera	common
Dasineura pustulans	Cecidomyiidae	Diptera	common
Dasineura ulmaria	Cecidomyiidae	Diptera	common
Dasineura urticae	Cecidomyiidae	Diptera	common
Iteomyia capreae	Cecidomyiidae	Diptera	common
Jaapiella veronicae	Cecidomyiidae	Diptera	common
Macrodiplosis pustularis	Cecidomyiidae	Diptera	common
Macrodiplosis roboris	Cecidomyiidae	Diptera	common
Taxomyia taxi	Cecidomyiidae	Diptera	common
Chaoborus flavicans	Chaoboridae	Diptera	common
Elachiptera brevipennis	Chloropidae	Diptera	common
Oscinella frit	Chloropidae	Diptera	common
Thaumatomyia notata	Chloropidae	Diptera	common
Campsicnemus curvipes	Dolichopodidae	Diptera	common
Chrysotus gramineus	Dolichopodidae	Diptera	common
Dolichopus plumipes	Dolichopodidae	Diptera	common
Dolichopus ungulatus	Dolichopodidae	Diptera	common
Medetara truncorum	Dolichopodidae	Diptera	common
Poecilobothrus nobilitatus	Dolichopodidae	Diptera	common
Drosophila suzukii	Drosophilidae	Diptera	common
Scaptomyza pallida	Drosophilidae	Diptera	common
Hilara maura	Empididae	Diptera	common
Rhamphomyia tarsata	Empididae	Diptera	common
Hydrellia griseola	Ephydridae	Diptera	common
Hydrellia maura	Ephydridae	Diptera	common
Scatella lacustris	Ephydridae	Diptera	common
Fannia serena	Fanniidae	Diptera	common
Lipoptena cervi	Hippoboscidae	Diptera	common
Ocydromia glabricula	Hybotidae	Diptera	common
Calliopum simillimum	Lauxaniidae	Diptera	common
Peplomyza litura	Lauxaniidae	Diptera	common
Helius pallirostris	Limoniidae	Diptera	Notable
Lonchoptera lutea	Lonchopteridae	Diptera	common
Neria cibaria	Micropezidae	Diptera	common
Helina impuncta	Muscidae	Diptera	common
Hydrotaea irritans	Muscidae	Diptera	common

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Lispe tentaculata	Muscidae	Diptera	common
Mesembrina meridiana	Muscidae	Diptera	common
Geomyza tripunctata	Opomyzidae	Diptera	common
Opomyza florum	Opomyzidae	Diptera	common
Opomyza germinationis	Opomyzidae	Diptera	common
Palloptera umbellatarum	Pallopteridae	Diptera	common
Pollenia viatica	Polleniidae	Diptera	common
Pericoma nubila	Psychodidae	Diptera	common
Pericoma trivialis	Psychodidae	Diptera	common
Ptychoptera albimana	Ptychopteridae	Diptera	common
Ptychoptera contaminata	Ptychopteridae	Diptera	common
Chrysopilus cristatus	Rhagionidae	Diptera	common
Rhagio scolopaceus	Rhagionidae	Diptera	common
Nyctia halterata	Sarcophagidae	Diptera	common
Sarcophaga carnaria	Sarcophagidae	Diptera	common
Cordilura ciliata	Scathophagidae	Diptera	common
Scathophaga furcata	Scathophagidae	Diptera	common
Scathophaga stercoraria	Scathophagidae	Diptera	common
Apiloscatopse flavicollis	Scatopsidae	Diptera	common
Bradysia nitidicollis	Sciaridae	Diptera	common
Corynoptera flavosignata	Sciaridae	Diptera	common
Ilione albiseta	Sciomyzidae	Diptera	common
Pherbellia cinerella	Sciomyzidae	Diptera	common
Pherbina coryleti	Sciomyzidae	Diptera	common
Renocera pallida	Sciomyzidae	Diptera	common
Tetanocera elata	Sciomyzidae	Diptera	common
Tetanocera ferruginea	Sciomyzidae	Diptera	common
Sepsis cynipsea	Sepsidae	Diptera	common
Themira lucida	Sepsidae	Diptera	common
Beris chalybata	Stratiomyidae	Diptera	common
Beris vallata	Stratiomyidae	Diptera	common
Chloromyia formosa	Stratiomyidae	Diptera	common
Pachygaster atra	Stratiomyidae	Diptera	common
Cheilosia albitarsis	Syrphidae	Diptera	common
Cheilosia illustrata	Syrphidae	Diptera	common
Episyrphus balteatus	Syrphidae	Diptera	common
Eristalis arbustorum	Syrphidae	Diptera	common
Eristalis pertinax	Syrphidae	Diptera	common
Eristalis tenax	Syrphidae	Diptera	common
Eupeodes corollae	Syrphidae	Diptera	common
Eupeodes luniger	Syrphidae	Diptera	common
Helophilus pendulus	Syrphidae	Diptera	common

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Lejogaster metallina	Syrphidae	Diptera	common
Melanostoma mellinum	Syrphidae	Diptera	common
Melanostoma scalare	Syrphidae	Diptera	common
Myathropa florea	Syrphidae	Diptera	common
Neoascia podagrica	Syrphidae	Diptera	common
Platycheirus albimanus	Syrphidae	Diptera	common
Platycheirus rosarum	Syrphidae	Diptera	common
Scaeva pyrastri	Syrphidae	Diptera	common
Sphaerophoria scripta	Syrphidae	Diptera	common
Syritta pipiens	Syrphidae	Diptera	common
Syrphus ribesii	Syrphidae	Diptera	common
Volucella inanis	Syrphidae	Diptera	common
Volucella pellucens	Syrphidae	Diptera	common
Haematopota pluvialis	Tabanidae	Diptera	common
Tabanus bromius	Tabanidae	Diptera	common
Eriothrix rufomacualta	Tachinidae	Diptera	common
Lydella stabulans	Tachinidae	Diptera	common
Tachina fera	Tachinidae	Diptera	common
Anomoia purmunda	Tephritidae	Diptera	common
Tephritis neesii	Tephritidae	Diptera	common
Terellia tussilaginis	Tephritidae	Diptera	common
Urophora cardui	Tephritidae	Diptera	common
Urophora jaceana	Tephritidae	Diptera	common
Nephrotoma appendiculata	Tipulidae	Diptera	common
Melieria crassipennis	Ulidiidae	Diptera	common
Orchesella cincta	Entomobryidae	Entomobryomorpha	common
Verhoeffiella longicornis	Entomobryidae	Entomobryomorpha	common
Tomocerus vulgaris	Tomoceridae	Entomobryomorpha	common
Serratella ignita	Ephemerellidae	Ephemeroptera	common
Ephemera danica	Ephemeridae	Ephemeroptera	common
Ephemera vulgata	Ephemeridae	Ephemeroptera	local
Cyphostethus tristriatus	Acanthosomatidae	Hemiptera	common
Elasmucha grisea	Acanthosomatidae	Hemiptera	common
Acompocoris pygmaeus	Anthocoridae	Hemiptera	common
Anthocoris confusus	Anthocoridae	Hemiptera	common
Anthocoris limbatus	Anthocoridae	Hemiptera	common
Anthocoris nemoralis	Anthocoridae	Hemiptera	common
Anthocoris nemorum	Anthocoridae	Hemiptera	common
Buchananiella continua	Anthocoridae	Hemiptera	common
Cardiastethus fasciiventris	Anthocoridae	Hemiptera	common
Temnostethus gracilis	Anthocoridae	Hemiptera	common
Temnostethus pusillus	Anthocoridae	Hemiptera	common

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Eriosoma ulmi	Aphididae	Hemiptera	common
Pemphigus bursarius	Aphididae	Hemiptera	common
Pemphigus spyrothecae	Aphididae	Hemiptera	common
Tetraneura ulmi	Aphididae	Hemiptera	common
Aphrophora alni	Aphrophoridae	Hemiptera	common
Neophilaenus lineatus	Aphrophoridae	Hemiptera	common
Philaenus spumarius	Aphrophoridae	Hemiptera	common
Aneurus avenius	Aradidae	Hemiptera	common
Alebra albostriella	Cicadellidae	Hemiptera	common
Allygus modestus	Cicadellidae	Hemiptera	common
Aphrodes makarovi	Cicadellidae	Hemiptera	common
Cicadella viridis	Cicadellidae	Hemiptera	common
Cicadula flori	Cicadellidae	Hemiptera	Nb
Conosanus obsoletus	Cicadellidae	Hemiptera	common
Edwardsiana candidula	Cicadellidae	Hemiptera	common
Empoasca vitis	Cicadellidae	Hemiptera	common
Eupteryx aurata	Cicadellidae	Hemiptera	common
Eupteryx urticae	Cicadellidae	Hemiptera	common
Euscelis incisus	Cicadellidae	Hemiptera	common
Evacanthus interruptus	Cicadellidae	Hemiptera	local
Grypotes puncticollis	Cicadellidae	Hemiptera	common
Iassus lanio	Cicadellidae	Hemiptera	common
Iassus scutellaris	Cicadellidae	Hemiptera	NA
Kybos butleri	Cicadellidae	Hemiptera	common
Macropsis prasina	Cicadellidae	Hemiptera	common
Macrosteles variatus	Cicadellidae	Hemiptera	common
Macrosteles viridigriseus	Cicadellidae	Hemiptera	local
Metidiocerus rutilans	Cicadellidae	Hemiptera	common
Oncopsis carpini	Cicadellidae	Hemiptera	common
Ribautiana ulmi	Cicadellidae	Hemiptera	common
Stenidiocerus poecilus	Cicadellidae	Hemiptera	local
Thamnotettix dilutior	Cicadellidae	Hemiptera	common
Coreus marginatus	Coreidae	Hemiptera	common
Corixa punctata	Corixidae	Hemiptera	common
Hesperocorixa sahlbergi	Corixidae	Hemiptera	common
Conomelus anceps	Delphacidae	Hemiptera	common
Javesella dubia	Delphacidae	Hemiptera	common
Stenocranus minutus	Delphacidae	Hemiptera	common
Gerris lacustris	Gerridae	Hemiptera	common
Hydrometra stagnorum	Hydrometridae	Hemiptera	common
Issus coleoptratus	Issidae	Hemiptera	common
Cymus melanocephalus	Lygaeidae	Hemiptera	common

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Heterogaster urticae	Lygaeidae	Hemiptera	common
Ischnodemus sabuleti	Lygaeidae	Hemiptera	common
Kleidocerys resedae	Lygaeidae	Hemiptera	common
Metopoplax ditomoides	Lygaeidae	Hemiptera	local
Nysius huttoni	Lygaeidae	Hemiptera	common
Orsillus depressus	Lygaeidae	Hemiptera	common
Peritrechus geniculatus	Lygaeidae	Hemiptera	common
Peritrechus lundii	Lygaeidae	Hemiptera	common
Scolopostethus thomsoni	Lygaeidae	Hemiptera	common
Loricula elegantula	Microphysidae	Hemiptera	common
Amblytylus nasutus	Miridae	Hemiptera	common
Atractotomus magnicornis	Miridae	Hemiptera	common
Atractotomus mali	Miridae	Hemiptera	common
Campyloneura virgula	Miridae	Hemiptera	common
Capsus ater	Miridae	Hemiptera	common
Closterotomus norwegicus	Miridae	Hemiptera	common
Cyllecoris histrionius	Miridae	Hemiptera	common
Deraeocoris flavilinea	Miridae	Hemiptera	common
Deraeocoris ruber	Miridae	Hemiptera	common
Deraeocoris lutescens	Miridae	Hemiptera	common
Dicyphus epilobii	Miridae	Hemiptera	common
Dicyphus stachydis	Miridae	Hemiptera	common
Europiella artemisiae	Miridae	Hemiptera	common
Grypocoris stysi	Miridae	Hemiptera	common
Halticus luteicollis	Miridae	Hemiptera	local
Harpocera thoracica	Miridae	Hemiptera	common
Heterotoma planicornis	Miridae	Hemiptera	common
Leptopterna dolabrata	Miridae	Hemiptera	common
Liocoris tripustulatus	Miridae	Hemiptera	common
Lopus decolor	Miridae	Hemiptera	local
Lygus pratensis	Miridae	Hemiptera	common
Macrotylus horvathi	Miridae	Hemiptera	local
Malacocoris chlorizans	Miridae	Hemiptera	common
Megacoelum infusum	Miridae	Hemiptera	common
Megaloceroea recticornis	Miridae	Hemiptera	common
Miridius quadrivirgatus	Miridae	Hemiptera	local
Miris striatus	Miridae	Hemiptera	common
Monalocoris filicis	Miridae	Hemiptera	common
Notostira elongata	Miridae	Hemiptera	common
Oncotylus viridiflavus	Miridae	Hemiptera	local
Orthops campestris	Miridae	Hemiptera	common
Orthotylus marginalis	Miridae	Hemiptera	common

Species	Family	Order	Conservation status
Orthotylus bilineatus	Miridae	Hemiptera	local
Phylus coryli	Miridae	Hemiptera	common
Phylus melanocephalus	Miridae	Hemiptera	common
Phytocoris varipes	Miridae	Hemiptera	common
Phytocoris tiliae	Miridae	Hemiptera	common
Pilophorus clavatus	Miridae	Hemiptera	common
Pilophorus perplexus	Miridae	Hemiptera	common
Pinalitus cervinus	Miridae	Hemiptera	common
Pithanus maerkelii	Miridae	Hemiptera	common
Plagiognathus arbustorum	Miridae	Hemiptera	common
Plagiognathus chrysanthemi	Miridae	Hemiptera	common
Psallus perrisi	Miridae	Hemiptera	common
Psallus varians	Miridae	Hemiptera	common
Salicarus roseri	Miridae	Hemiptera	common
Stenodema calcarata	Miridae	Hemiptera	common
Stenodema laevigata	Miridae	Hemiptera	common
Stenotus binotatus	Miridae	Hemiptera	common
Teratocoris antennatus	Miridae	Hemiptera	local
Tupiocoris rhododendri	Miridae	Hemiptera	common
Himacerus mirmicoides	Nabidae	Hemiptera	common
Himacerus apterus	Nabidae	Hemiptera	common
Nabis lineatus	Nabidae	Hemiptera	common
Nabis flavomarginatus	Nabidae	Hemiptera	common
Nabis rugosus	Nabidae	Hemiptera	common
Nepa cinerea	Nepidae	Hemiptera	common
Notonecta glauca	Notonectidae	Hemiptera	common
Notonecta maculata	Notonectidae	Hemiptera	common
Aelia acuminata	Pentatomidae	Hemiptera	common
Dolycoris baccarum	Pentatomidae	Hemiptera	common
Eysarcoris venustissimus	Pentatomidae	Hemiptera	common
Palomena prasina	Pentatomidae	Hemiptera	common
Pentatoma rufipes	Pentatomidae	Hemiptera	common
Piezodorus lituratus	Pentatomidae	Hemiptera	common
Cacopsylla peregrina	Psyllidae	Hemiptera	common
Psylla alni sensu stricto	Psyllidae	Hemiptera	common
Psyllopsis fraxini	Psyllidae	Hemiptera	common
Psyllopsis fraxinicola	Psyllidae	Hemiptera	common
Stictopleurus abutilon	Rhopalidae	Hemiptera	common
Saldula saltatoria	Saldidae	Hemiptera	common
Eurygaster testudinaria	Scutelleridae	Hemiptera	common
Derephysia foliacea	Tingidae	Hemiptera	local
Physatocheila dumetorum	Tingidae	Hemiptera	common