

Richard Wilson Ecology

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A CORE SERVICE offered is the provision of bespoke terrestrial and aquatic invertebrate surveys, working with specialists around the UK to deliver consistent and high quality work (survey design, implementation, reporting and graphics) reflecting the standards expected from the profession.

- Single point of contact minimises your project set-up and management time and costs.
- Gives you the reassurance of a delivery that meets commercial deadlines and expectations.
- Working with a range of entomologists allows each project to benefit from the input of a team of respected and acknowledged specialists.
- Collaborative approach strengthens your ability to communicate outputs delivered comply with requirements set out in ¹national planning and ²nature conservation policies and ³industry best practice; adding weight to any planning submission.



Pitfall trap, targeting ground-dwelling invertebrate communities.

In supporting scoping or more detailed invertebrate surveys, site visits can also include standardised assessments to determine if habitats conform to habitats of principal importance. Examples include Open Mosaic Habitats on Previously Developed Land, which can be present on brownfield sites and a more precise assessment of the dead-wood communities present in ancient woodland.



Malaise trap, targeting aerial invertebrate communities.

Table 1: Services Offered

Survey Type	When/ Number of Visits.	Useful for?
Scoping Survey	Anytime/ One.	Identifying if more detailed surveys are needed, for example, on: <ul style="list-style-type: none"> • brownfield sites (which can vary tremendously in quality, size and connectivity to semi-natural habitats); • large greenfield sites where there is a mix of intensively managed agricultural land and potentially more valuable habitats (e.g. woodlands, mature hedgerows, mature trees (within hedgerows or as parkland trees)); or • identifying specific habitat parcels within large greenfield/ brownfield sites, thus focussing survey effort and retaining proportionality.
Detailed Surveys	April to August. Typically three visits, e.g.: <ul style="list-style-type: none"> • April to early May; • mid-May to late June; and • July to August. Can be useful to extend through to autumn in certain habitats.	<ul style="list-style-type: none"> • Ensuring project is policy and legal compliant and conforms to industry best practice. • Enabling accurate appraisal/ assessment of habitats to inform EclA. • Provision of detailed, annotated species lists covering a wide range of taxa. • Analysis of invertebrate communities, identifying which are considered to be of highest nature conservation value, thereby focussing on appropriate and proportionate mitigation and enhancement taking in to account site context.

¹ Paragraph 118 of the National Planning Policy Framework

² Biodiversity 2020: A strategy for England's wildlife and ecosystem services.

³ BS42020: Biodiversity. Code of practice for planning and development

Examples of recent projects include:

- scoping surveys of brownfield sites (northern England) for housing developments and large greenfield sites to identify habitat parcels warranting further study (southern England);
- detailed surveys of ancient woodland, specifically focussing on saproxylic (dead-wood) specialists, e.g. Diptera (flies) and Coleoptera (beetles) to inform EclA for major commercial development (northern England);
- detailed terrestrial and aquatic surveys on a greenfield site to inform EclA (English Midlands);
- identification of specimens collected by third parties from various brownfield sites (northern England and south Wales);
- surveys within ancient woodland and high quality calcareous grassland to inform Landscape and Ecological Management Plan to comply with LPA planning agreement (south-east England); and
- detailed research studies on upland spiders focusing on Species of Principal Importance, funded by various authorities (e.g. Natural England, Buglife – the Invertebrate Conservation Trust, British Arachnological Society and National Park Authorities (Yorkshire Dales, North York Moors and Northumberland National Parks).



Water-trap targeting arboreal invertebrate communities.



Standard collecting equipment including beating-tray and pooter.

Depending on the project, a wide range of invertebrate taxa can be surveyed for, though the important groups, useful for habitat evaluation will normally be recorded as standard. These include:

- Diptera (flies);
- Hymenoptera (bumblebees, solitary bees, wasps, sawflies, ants and allies);
- Coleoptera (beetles);
- Hemiptera (typical bugs (the Heteroptera), leafhoppers, plant-hoppers and allies (the Auchenorrhyncha));
- Arachnida (spiders and harvestmen);
- Lepidoptera (moths and butterflies);
- Odonata (dragonflies and damselflies);
- Aquatic groups, e.g. Trichoptera (caddisflies), Plecoptera (stone-flies) and Ephemeroptera (mayflies).



Leucozona glauca; a woodland hoverfly more frequent in the north of England than the south.



When commissioning invertebrate surveys, please bear in mind that sufficient time needs to be allocated for identifying specimens back home. The majority of taxa cannot be reliably recorded in the field; or are too time consuming and reduces fieldwork efficiency.

For further information, please contact Richard Wilson; details at the foot of this page.



Dingy skipper (Erynnis tages); a butterfly often associated with brownfield sites and experiencing a rapid decline, hence its inclusion as a Species of Principal Importance.