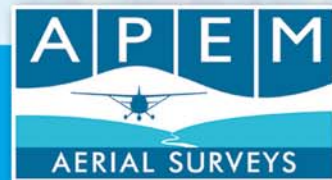




Macroinvertebrate & Benthic Ecology

- Europe's largest dedicated aquatic biology laboratories - **APEM BioLabs** - offer unrivalled capacity, turnaround times, quality assurance & health & safety standards
- Experienced biologists provide rapid & accurate identification of freshwater & marine macroinvertebrates to the highest levels of taxonomic expertise
- Rigorous internal analytical quality control system & external audit that exceed UK environmental regulators' requirements
- Specialist skills in identifying difficult macroinvertebrate groups & verification of identifications
- Sampling in all aquatic habitats using standard & bespoke methods
- Data analysis including RIVPACS, BMWP/ASPT, LIFE & CCI as standard
- High-level reporting, statistical analysis, modelling, survey design, impact analysis & Research & Development are our forté



building reputation through excellence



What can we offer?

We are the European leader in macroinvertebrate taxonomy and aquatic monitoring. APEM BioLabs is geared towards supporting the monitoring requirements of the EU Water Framework Directive as well as those of UK environmental regulators and water companies. No project is too big or too small and our expertise in data analysis and reporting is second to none.

Why choose APEM?

APEM is a science-based consultancy working exclusively within the realm of Aquatic Science for over 20 years. We operate UK-wide, providing a comprehensive, multi-disciplinary approach to the monitoring and management of aquatic ecosystems. Our scientists are recognised experts in their diverse and specialist fields. Our teams work to exacting standards and are committed to providing a professional, client-focused service.

APEM BioLabs are state-of-the-art aquatic biology laboratories that have been designed in consultation with the Environment Agency. We operate to the highest levels of analytical quality control and health & safety standards. Our scientists are in the premier league of taxonomic and ecological expertise, each providing their own unique specialisms. Our capacity to undertake the largest of projects and provide the quickest turnaround times is unmatched in Europe.

Who are our clients?

We work for a wide range of organisations including:

- Environment Agency/ SEPA
- Highways Agency
- Conservation agencies
- British Waterways
- Water & power companies
- Local authorities
- Environmental consultancies
- Angling clubs & associations
- Regional Development Agencies

Key projects

Analytical support for the EA & SEPA

APEM BioLabs support the Environment Agency (EA) and the Scottish Environmental Protection Agency (SEPA) in the analysis of macroinvertebrate samples that are collected for the biological monitoring of watercourses. Hundreds of samples have been processed each year since 2002 across all the EA and SEPA regions.

River Thames baseline ecological monitoring

APEM designed a before-after-control-impact (BACI) monitoring programme to assess the potential effect of a major water resource development on the ecology of the River Thames. Macroinvertebrates were collected from all in-stream mesohabitats using replicated air-lift sampling, standard colonisation units covering deep water habitats and kick/sweep sampling of river margins. Several rare species were collected.

Long-term studies on River Exe, Devon

APEM was commissioned to undertake long-term macroinvertebrate monitoring of the upper reaches of the Exe catchment to determine the impact of augmentation from Wimbleball Reservoir on macroinvertebrate communities. We subsequently conducted detailed data analysis using univariate and multivariate statistical methods to evaluate the influence of augmented flows.

Offshore benthic invertebrate survey

We were commissioned to study the potential detrimental effects of proposed dredging on benthic communities as part of an Environmental Impact Assessment in the North Sea off the Lincolnshire coastline. Our marine scientists identified and enumerated benthic invertebrates to species level. We also conducted benthic and pelagic trawls to assess juvenile and adult fish populations in this important spawning and nursery area.

Insecticide toxicity

APEM was commissioned to undertake investigations into the effects of insecticide treatment for a trickle bed filter fly infestation at a sewage treatment works on the River Tame. We assessed the acute effect of the insecticide on the invertebrate communities of the receiving streams.

New Mersey crossing

APEM was commissioned to undertake baseline monitoring of the Mersey Estuary as part of an Environmental Impact Assessment for a proposed major new bridge crossing between Runcorn and Widnes. The project involved surveying notoriously difficult upper estuary inter-tidal and sub-tidal habitats for invertebrates and fish.

Every day we deliver a professional, integrated service across all Aquatic Science disciplines. Every day our people raise the bar with their dedication to quality, integrity and impartiality. Every day we strive to exceed your expectations.

Riverview, Embankment Business Park, Heaton Mersey, Greater Manchester SK4 3GN. Tel: 0161 442 8938

Begbroke Science Park, Oxford University, Sandy Lane, Yarnton, Oxford OX5 1PF. Tel: 01865 854853

South Wing, Winfrith Technology Centre, Winfrith, Dorset DT2 8DH. Tel: 01929 463387

www.apemltd.co.uk