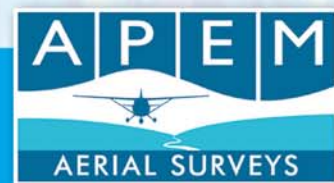




Plankton, Diatoms & Algae Studies

- Field sampling & monitoring; identification; counts; photomicroscopy
- Expert analysis of algae & zooplankton samples to family & species level in our dedicated aquatic biology laboratories
APEM BioLabs
- Extensive research background in algology, algal bloom modelling & algal control strategies in docklands, reservoirs, lakes, river & canal systems
- Assessment of water quality & trophic status by studying diatoms in lotic & lentic environments
- Trophic Diatom Index (TDI), DARES & DALES analysis
- Palaeoecological investigations of lacustrine, estuarine & coastal environments to determine reference conditions
- Production of permanent mounts for future reference, analysis & cross-referencing



building reputation through excellence



What can we offer?

APEM has been heavily involved in phytoplankton, diatom and zooplankton research since 1987. We have worked across the full range of UK freshwater, estuarine and marine environments including waterbodies used for recreational purposes.

Phytoplankton

We provide rapid and accurate identification to the highest level of taxonomic expertise, together with cell and unit counts and relative abundance measurements. We offer a chlorophyll analysis service and our scientists can calculate biovolume/biomass estimates.

Diatoms

Implementation of the EU Water Framework Directive has significant implications for any business with operations that impact on the aquatic environment. Diatoms are key biological indicators used to determine ecological status in freshwaters, that provide information on the ecological status of estuarine and coastal waters.

Sampling and analysis is carried out using Trophic Diatom Index (TDI) and DARES & DALES protocols; assessments can be tailored to our clients' needs. APEM performs high-level statistical analysis, modelling, reporting and Research and Development projects and has rigorous internal analytical quality control and external audit.

Zooplankton

We provide relative abundance and density measurements for different taxonomic groups. We analyse samples using a binocular dissecting microscope in conjunction with higher magnification under a compound microscope. Our scientists produce high quality statistical analysis & graphical representation of data.

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
- Local authorities
- Water companies
- British Waterways
- Environmental consultancies

Key projects

River Otter low flow studies

Diatoms are being used as indicators to assess the possible ecological effects of groundwater abstractions in the River Otter catchment.

Manchester Ship Canal

APEM is using the Trophic Diatom Index (TDI) to inform on the status of the Ship Canal as part of a multi-disciplinary study.

The Mersey gateway

We are contributing to an ongoing multi-disciplinary estuarine study including provision of baseline ecological data on diatoms, the predominant algal group.

Southport & Crosby marine lakes

APEM was commissioned to carry out an extensive monitoring programme at these urban, recreational lakes to inform a management plan for the treatment of algal blooms and macrophyte development.

Liverpool docks ecological monitoring

We carry out fortnightly water quality monitoring and ecological sampling at 15 sites of varying salinity within Liverpool docks on the Mersey Estuary. We report on phytoplankton numbers and notify British Waterways of problems such as low oxygen levels.

Upper Thames ecological monitoring

We have collected samples of phytoplankton and zooplankton on a monthly and fortnightly basis since 2005 on the River Thames in Oxfordshire. We also sample and analyse benthic diatoms in the river and two of its tributaries. This is part of a multi-disciplinary project creating baseline aquatic science data.

Tamar lakes eutrophication

APEM was commissioned by South West Water to carry out a major desk study into the eutrophication of the Tamar Lakes water supply reservoirs in southwest England. APEM generated and closely examined 23 amelioration schemes to address the problems of severe algal blooms.

Salford Quays water management

APEM has been responsible for the design, improvement and monitoring of the Salford Quays water management system, working towards the creation of an ecologically stable and sustainable water environment since 1987. This has included monthly sampling and analysis of phytoplankton and zooplankton communities and a range of surveys to monitor the extent of improvements.

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.

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