



Providing solutions for Government,
Communities and Industry

Short Course in Aquatic Environment Monitoring Skills

TropWATER undertakes influential research in fields related to water science, resource management and the ecology of aquatic ecosystems in northern Australia and throughout the Tropics internationally.

The short course in aquatic environment monitoring skills will improve understanding and value adding from the perspectives of field staff, recent graduates and experienced professionals.

Course Outline

An overview of environmental monitoring: Who, What, When, Where, How, and Why. Placing environmental monitoring in a wider-world context.

Planning and logistics for environmental monitoring: Fieldwork planning and housekeeping. Knowing what you don't know.

An introduction to water quality guidelines: Overview of National, State, Territory, and Regional Water Quality Guidelines. Water quality guidelines in different systems. Application and interpretation of regulatory frameworks in environmental monitoring. Application of freshwater quality guidelines under different flow conditions.

The aquatic environment: Freshwater and saline waters. Groundwater. Latitudinal variation. Different surface water flow regimes. Groundwater-surface water interactions.

An introduction to aquatic environment monitoring techniques: Water quality monitoring and context. Overview of and interactions between water and other physical and biological indicators. Standard sampling methods.

Practical water quality monitoring and sampling techniques: Field equipment maintenance and calibration. Field preparation and QA/QC. Best practice sample collection. The importance of field notes. Flow evaluation.

Troubleshooting and problem solving in the field: Troubleshooting in the field. Sources of field error. Use of cheat sheets and decision trees.

Data interpretation and integration: Data entry and QA/QC. Checks and balances. Missing or misleading data. Integrating water quality into wider assessments. Evaluation and reporting of environmental monitoring data. Successful communication of results.

Key Objectives

- Getting the best value from aquatic environment monitoring in the dry and wet-dry Tropics.
 - The critical importance of context in environmental monitoring.
 - Techniques and technologies to improve monitoring programs.
 - Understanding the 'Big Picture'.
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Contact Details

Contact us at TropWATER@jcu.edu.au with the subject line "Short Course" to enquire about upcoming courses and register your interest in participation.

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