



## personal profile

# Carol Conacher principal ecologist

B.Sc.

As one of the industry's most highly respected wetland ecologists, Carol has over 25 years experience working with both the fresh and tidal wetland ecosystems of eastern and northern Australia, and the Pacific region. Carol is foremost respected for her knowledge and understanding of riverine and coastal ecosystems, and in particular phytoplankton, seagrass, mangrove, saltmarsh and freshwater wetland communities. Her expertise and experience underpin **frc environmental's** aquatic botany group.

Carol's professional experience includes substantial periods in research, resource management and consulting. She has worked with both tropical and temperate ecosystems, having worked extensively in Tasmania, New South Wales, Queensland, the Northern Territory, and the Pacific.

Carol's in-depth understanding of survey and analytical techniques enables her to translate cutting-edge research into cost-effective, practical outcomes that respond to the requirements of both assessment agencies and commercial clients.

As a research scientist with NSW Fisheries and the CSIRO's Division of Fisheries, Carol pioneered many of the wetland rehabilitation techniques in use today. Carol continues to expand and refine her expertise in wetland rehabilitation and constructed wetland design.



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freshwater

estuarine

marine



## carol conacher profile

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Carol takes a holistic, systems-based approach to the interpretation of experimental, survey and monitoring data. She is particularly skilled in experimental design, statistical analysis and the synthesis of complex and varied data sets into a coherent whole.

Since joining **frc environmental** in 1996, Carol has lead many of the Practice's more complex projects. She is particularly in demand for studies seeking to better understand the impact of effluent discharge on the receiving environment, having an in-depth understanding of both the chemistry of water-sediment-biota interactions, and the relevant legislation, regulation and guidelines. Carol's holistic understanding of the ecology of both phytoplankton and macrophytes enables her to provide uniquely practical advice in respect of the management of both blue-green algae and nuisance macrophytes.

Carol commonly serves as an expert witness before the Planning and Environment Court.

### key achievements

- Pioneered the rehabilitation of mangrove, saltmarsh and seagrass habitats
- Commercialised research techniques for seagrass monitoring (modified Mellor's method; stable isotope tracking of nutrients; wetland pore water analysis)
- Developed a wetland health index for the then Queensland EPA
- Respected negotiator with GBRMPA, DERM, FQ and DTRM in respect of permitting, monitoring program design and compensatory habitat
- Had significant ecological input into the design of artificial freshwater waterways to maximize their ecological value (e.g. Blackwater and Mango Hill)
- Recognised and publicised the widespread nature of mangrove dieback in south east Queensland, and developed correlation with drought
- Lead and mentored indigenous community of Hervey Bay to monitor seagrass beds during the redevelopment of Urangan Boat Harbour
- Lead researcher for Pimpama Estuary Ecological Study, a land mark study using state of the art modelling to determine water quality objectives based on a robust ecological data set
- Worked with developers, government agencies and key stakeholders to provide the most beneficial outcomes to all parties
- Worked with commercial fishermen on long-term monitoring of fisheries habitat