

Curriculum Vitae

Dr Simon Roberts

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E d u c a t i o n

PhD Monash University 1998
Thesis Title: Photosynthetic physiology of phosphate limited microalgae.

BSc (Hons) LaTrobe University 1983

P r o f e s s i o n a l E x p e r t i s e

- Nutrient biogeochemistry in aquatic ecosystems with emphasis on the role of autotrophic components in benthic pelagic coupling processes.
- Role of sediment nutrient stores in relation to water quality in rivers and lakes.
- Critical review of data in relation to role of catchment sources of sediments and nutrients in relation to system function.
- Provision of advice on appropriate monitoring regimes in aquatic systems to detect the effects of anthropogenic change.
- Expert advice on aquatic ecosystem functions in relation to nutrient loading and water regimes.
- Project management, technical report and academic paper authorship
- Membership of technical reporting groups including participation in workshops and formal oral presentations
- Co-ordination and delivery of projects within a university and private consulting environment.

R e f e r e e d P a p e r s , R e p o r t s , a n d P r e s e n t a t i o n s

I have authored or co-authored 20 scientific papers in international, refereed journals, 15 technical reports for projects and consultancies and been a presenter or co-author of 15 conference presentations in Australia and internationally.

Relevant Professional Positions (2001-2011)

- A. Senior Aquatic Scientist, resource management (Dec 2008-May 2009 full time, 2009-2011 casual)**
Hydro Consulting (Entura), Tasmania
Provision of advice on the management of lakes in relation to water quality, riparian and aquatic flora and fauna.
- B. Gippsland Lakes Ecological Indicators of Climate Change Workshop (2007-2008, part time)**
Funded and managed by Gippsland Lakes Taskforce.
Provision of advice on the potential effects of climate change (sea level rise, increased temperature and reduced river flows) on biogeochemical cycling in the Gippsland lakes.
- C. Fly River, PNG microalgal biomass and production study (2007)**
Funded by Ok-Tedi Mining. Managed by John Beardall, Biological Science, Monash.
Pilot investigation to develop methods to assess algal biomass and production in the river and off river water bodies.
- D. Gippsland Lakes Environmental water requirements (2007-2008 part time)**
Funded by West Gippsland CMA. Managed by ECOS consulting.
Expert advice on the construction of conceptual and Bayesian models of water requirements.
Attend meetings and consult with members of the management team in relation to refinement of models.
- E. Lake Nagambie project (mid 2006- late 2007 full time)**
Funded by Goulburn Murray Water. Managed by WSC.
Review of existing data in relation to nutrient cycling and ecosystem function.
Collection and interpretation of spatial biogeochemical data in relation to hydrology.
Investigation of potential triggers to low oxygen events.
- F. Gippsland Lakes sediment nutrient review (2006 part time).**
Funded by the Gippsland Lakes Task force.
Review of the role of sediment nutrient stores on the water quality of the lakes.
Consult with scientists currently working on the lakes (EPA, Fisheries and other Universities).
- G. Wimmera River project (2005-2006 part time)**
Funded by Wimmera CMA. Managed by DPI.
Review of the role of macrophytes in nutrient cycling.
Estimation of potential nutrient limitation of autotrophic communities.
- H. Port Phillip Bay Channel Deepening EES (2005-2006 part time)**
Funded by Port of Melbourne. Managed by Australian Marine Ecology Pty. Ltd.
Investigation of the role of turbidity on the survival of benthic autotrophic communities.
Monitoring of microalgae, macroalgae and seagrasses during trial dredging.
- I. Lake Coleman project (2004-2006 part time)**
Funded by Gippsland Water. Managed by WSC.
Examination of light/turbidity & nutrient effects on algal growth.
Collection and interpretation of spatial biogeochemical data in relation to ecological function.
Development of conceptual model of nutrient dynamics in relation to hydrology.
- J. Upper Torrens project (2005 part time)**
Funded by SA Water. Managed by Water Science Pty Ltd.
Critical review of existing data on sources of nutrients and sediment.
Estimations of the relative contribution of land use and inter-basin transfers.
Provision of advice on requirements for monitoring.

- K. Gippsland lakes- Ecosystem Monitoring and Assessment workshop and report (June, 2003).**
Funded and Managed by EPA Victoria
Preparation and attendance at workshop and report writing.
- L. Gippsland lakes sediment study (2002-2003 part time)**
Funded by Environment Australia (Coasts and clean Seas). Managed by WSC
Investigate spatial and temporal patterns in sediment nutrient flux.
Collaborate and consult with staff from Fisheries and the EPA to provide appropriate additional information to existing sampling programs.
- M. D210 project, Urbanization and stream function. (2001-2003 full time).**
Funded by CRC for freshwater ecology. Managed by WSC
Multidisciplinary investigation of the role of impervious substrates in catchments on stream ecological function.
Contribute to the conceptual model of the role impervious substrates on ecological function through workshops and targeted meetings.
- N. Derwent River ERA (2000)**
Funded by Norske Skog. Managed by CSIRO.
Collection and analysis of physico-chemical water samples over an annual cycle.
Estimations of saltwedge and freshwater phytoplankton biomass and production.
Estimation of benthic microalgal biomass and production.
Estimation of seagrass biomass and production.

Personal expertise

I have also participated in the public consultation planning approval process in both Victoria and Tasmania. In particular I made multiple submissions and attended hearings in the Victorian Planning Panel assessment into the Port Phillip Bay Channel Deepening Project. I have taken an active role over the past 10 years in local and state planning issues including providing written and oral submissions to the Huon Valley Council IPS and to the State Planning Provisions at the State Planning Commission.

I continue to read current scientific publications in relation to water quality and land use change and provide my expertise to local groups and state bodies (Tasmanian Landcare).