

QUALIFICATIONS

BSc Hons (Microbiology, Zoology),
University of Otago

PROFESSIONAL AFFILIATIONS

Council member International Society for
the Study of Harmful Algae (ISSHA)

Editorial Advisory Board; "Harmful Algae"
journal, Elsevier Science

ROLE AT CAWTHRON

Research scientist; marine ecosystem
research and consulting

SPECIAL INTERESTS & ACHIEVEMENTS

- Specialist in phytoplankton systematics, harmful algal bloom ecology and physiology, marine biotoxin surveillance and analysis, shellfish biochemistry and physiology, environmental effects of aquaculture, biosecurity and biogeochemical processes in coastal environments.
- Assistance to the New Zealand aquaculture industry, public health protection and seafood export regulatory authorities by provision of best scientific and technical advice in the areas of harmful algal bloom ecology and marine ecosystem function.

SELECTED PUBLICATIONS

MacKenzie et al. 2011. An *Alexandrium catenella* bloom and associated saxitoxin contamination of shellfish, Queen Charlotte Sound, March-June 2011. For MAF Food Safety. Cawthron Report No. 1945. 38pp.

MacKenzie L, Selwood A, McNabb P, Rhodes L. 2011. Benthic dinoflagellate toxins in two warm-temperate estuaries; Ranguanu and Parengarenga Harbours, Northland, New Zealand. *Harmful Algae* (in press).

MacKenzie L, Smith KF, Rhodes LL, Brown A, Langi V, Lovell G, Preece M. 2011. Mortalities of sea-cage salmon (*Oncorhynchus tshawytscha*) due to a bloom of *Pseudochattonella verruculosa* (Dictyophyceae) in Queen Charlotte Sound, New Zealand. *Harmful Algae* (in press).

MacKenzie AL. 2010. *In situ* passive solid-phase adsorption of micro-algal biotoxins as a monitoring tool. *Current Opinion in Biotechnology* 21; 326-331.



MacKenzie AL, Selwood A, Beuzenberg V. 2010. Shellfish enzymes and polyether-toxin assimilation and metabolism. *In: Harmful Algae* 2008. Proceedings of the 13th International Conference on Harmful Algal Blooms, Hong Kong, 3-7 November, 2008. Environmental Publication House Hong Kong. pp. 147-150.

MacKenzie L. 2008. The Ecobiology of the Brevetoxin, Ciguatoxin and Cyclic Imine Producers. *In* Botana L. M. [Ed], *Seafood and Freshwater Toxins: Pharmacology, Physiology and Detection*, Second Edition. p. 433-478.

MacKenzie L. 2004. River inputs, remineralisation and the spatial and temporal distribution of inorganic nutrients in Tasman Bay, New Zealand. *New Zealand Journal of Marine and Freshwater Research* 38: 681-704.

MacKenzie L, Beuzenberg V, Holland P, McNabb P, Selwood A. 2004. Solid phase adsorption toxin tracking (SPATT): A new monitoring tool that simulates the biotoxin contamination of filter feeding bivalves. *Toxicon* 44: 901-918.

MacKenzie L, Adamson J. 2004. Water column stratification and the spatial and temporal distribution of phytoplankton biomass in Tasman Bay, New Zealand. *New Zealand Journal of Marine and Freshwater Research* 38: 705-728.

MacKenzie L, Holland P, McNabb P, Beuzenberg V, Selwood A, Suzuki T. 2002. Complex toxin profiles in phytoplankton and Greenshell mussels (*Perna canaliculus*), revealed by LC-MS/MS analysis. *Toxicon* 40 (9): 1321-1330.

MacKenzie L, Sims I, Beuzenberg V, Gillespie P. 2002. Mass accumulation of mucilage caused by dinoflagellate polysaccharide exudates in Tasman Bay, New Zealand. *Harmful Algae* 1. 69-84.