# Dr Maylene Loo, Marine Environment & Ecology
# SARDI Aquatic Sciences

**Areas of expertise**
Benthic community ecology, Environmental assessment and monitoring, Aquaculture environment, Statistical analysis, Database management

**Countries of work experience**
Singapore, Australia, Thailand, Malaysia, Indonesia, Brunei Darussalam, Philippines, Cook Islands, India

**Overview of experience and qualifications**
Dr Loo graduated from the University of Adelaide with a PhD in 2001. The project involved looking at the Effects of Wastewater Effluent on Macrobenthic Infaunal Communities at Christies Beach, South Australia.
Prior to that, she had worked in the tropics, collaborating with scientists from ASEAN countries and others, on various marine ecological research projects on coral reefs, mangroves, seagrasses and soft-sediment benthic ecosystems. From this work, she has extensive experience and a good knowledge of sampling and monitoring techniques for carrying out surveys of coral reefs and benthic communities. She has also a good knowledge of univariate and multivariate statistics with experience in statistical analysis of large data sets, having been the country representative for regional data integration and management previously.
Throughout this time, she has published in journals and technical reports, and presented numerous papers at conferences. She is currently working as a senior marine ecologist on projects including development of molecular techniques for cost effective assessment of environmental impacts, and collation of data and field investigations to determine the best locations for aquaculture expansion, and to underpin the planning process.

**Professional appointments**
**2002-:** Senior Marine Ecologist, SARDI Aquatic Sciences
**1996-2001:** PhD, Department of Environmental Biology, University of Adelaide.
**1986-1995:** Research Assistant, Reef Ecology Laboratory, Department of Zoology, National University of Singapore.

**Research and consulting**
**2007-present:** Development of rapid environmental assessment and monitoring techniques for application to finfish aquaculture in South Australia.
**2004-2008**: Net fouling management to enhance water quality and southern bluefin tuna performance, South Australia.
**2003-2007:** Development of regional environmental sustainability assessments for tuna sea-cage aquaculture, South Australia.
**2003:** AusAID India-Australia Training and Capacity Building Project - Coral Reef Conservation and Management Sub-project. Component 3.1: Training in Survey and Monitoring Techniques. Component 3.2: Pilot Project on Survey and Monitoring, India.
**2002-2006:** Development of novel methodologies for cost effective assessment of the environmental impact of aquaculture, South Australia.

**2001-2004:** Assessment of benthic infaunal communities as part of the Tuna Environmental Monitoring Programme, South Australia.
**2001:** A study of the impact on dugongs by the proposed reclamation at Pulau
Tekong and Pulau Ubin, Singapore.
**1996-2001:** Effects of wastewater effluent on macrobenthic infaunal communities at Christies Beach, South Australia.
**1995/1996/1998:** Monitoring possible impacts of rock bund construction on the reefs of Pulau Semakau (Singapore) - establishment and assessment of baseline data.
**1993/1994:** Ecological baseline study of West Jurong Fairway including Gul Basin and Tuas Bay, Singapore.
Assessment of coastal living resources of Pulau Semakau, Singapore.
**1991:** General reconnaissance survey of the coral reefs of Pulau Sakra, Singapore.
The coral reef communities of Pulau Sakra and two adjacent offshore patch reefs, Singapore.
**1990:** An assessment of the seaweed community at Changi North, Singapore.
A preliminary study on the relocation of the Coralarium, Singapore.
**1986-1995:** Habitat enhancement –artificial reefs (ASEAN-US Cooperative Program on Marine Sciences: Coastal Resources Management Project)
Baseline survey and monitoring of coral reefs, mangroves and soft-sediment benthic communities (ASEAN-Australia "Living Resources In Coastal Areas" Project - Phase I & II).
Recruitment, Growth and Development of Coral Communities on Natural and Artificial Substrates. Artificial Reefs as a Marine Resource Enhancement Tool.
Study of Biodiversity and Environmental (Biological) Monitoring of the Coastal Waters of Singapore (National University of Singapore Research Project).

**Contact**
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