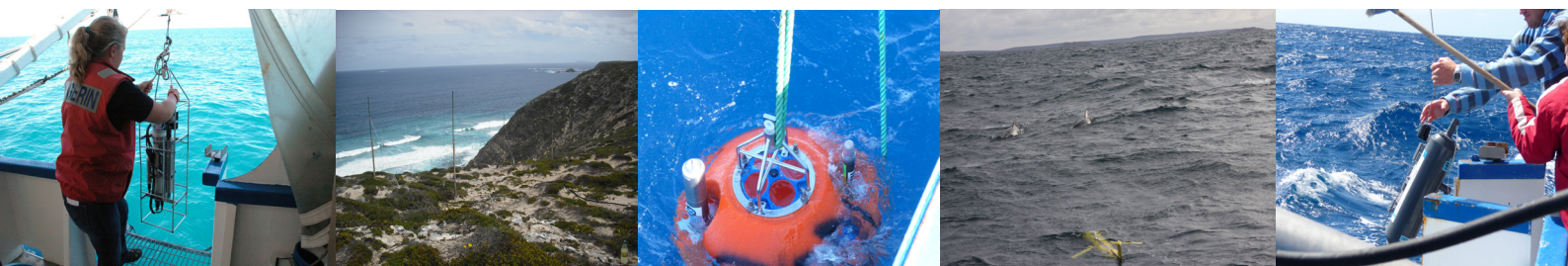


Assoc Prof John Middleton, Oceanography

SARDI Aquatic Sciences



Areas of expertise

Physical Oceanography, data analysis, ocean dynamics, ocean processes, numerical modelling and prediction, the physical processes of Australia's southern shelves including upwelling, dispersion and diffusion analysis.

Countries of work experience

Australia, Canada

Overview of experience and qualifications

Associate Professor Middleton has an outstanding record in research of ocean dynamics and coastal ocean modelling. He has developed a new theory for the circulation of large sea straits (Bass Strait). Through numerical model development and analyses of data, he has also made major advances in understanding the circulation along Australia's continental southern shelves and the upwelling system off South Australia. Highlights include advances in understanding the fundamental processes of upwelling, the identification of the Flinders Current as a small sister to the world's great western boundary currents, and the determination that El Nino signals have led to more effective upwelling off S.A.

The quality of Professor Middleton's work has been recognised through the awarding of \$4M in research grants since 1987 (ARC, FRDC, NCRIS). He has taken a lead role in experimental and theoretical projects involving collaboration with colleagues from Flinders University, UNSW, ADFA, CSIRO, VIMS, Chile, Russia and Canada. He has taken a leading role in the development of the Southern Australian Integrated Marine Observing System for S.A. and its expansion to include the Bonney Coast and Victorian agencies. The system is valued at over \$9M. He is also the author of more than 50 papers and reports, most of which have appeared in premier oceanographic journals.

Service

- Associate Editor of Progress in Oceanography (2003--2010)
- Appointed (2006) to the DEST (RQF) External Expert Review Panel of the Australian Institute of Marine Science Environmental Change and Impacts research program,
- APSO Executive member, 2003 – current
- Member, SCOR WG 129 Deep Ocean Exchange with the Shelf 2007- 2009
- Treasurer and Scientific Program Committee for "Dynamic Planet" a Joint Assembly of IAPSO, IABO and IAG (Cairns 2005).

Professional appointments (since 1991)

- 2008 - Leader, Physical Oceanography Program
- 2007 - Adjunct A/Professor Flinders University
- 2006 - Principal Research Scientist, SARDI.
- 1991 - 2005 Senior Lecturer, School of Mathematics, UNSW.

Responsibilities

- Oceanography Program Leader
- SAIMOS Node Leader
- SAIMOS Mooring Facility Leader

Current and Recent Research Projects

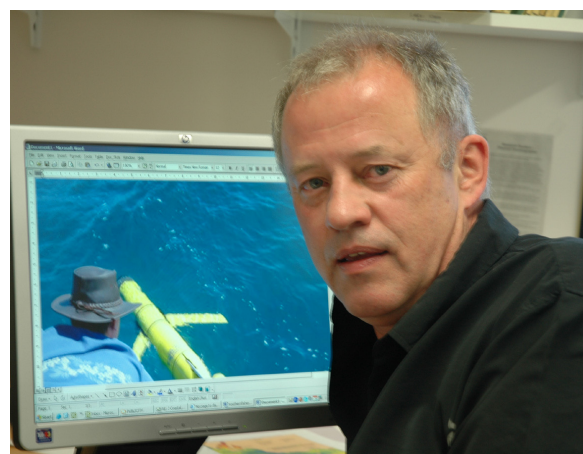
2010 Carrying Capacity for Spencer Gulf (FRDC, \$1.17M with the team)

2008 Optimising the prawn harvest in Spencer Gulf (FRDC, \$300K, with Dixon)

2007 The role of submarine canyons in upwelling sediment transport, and productivity hotspots off the Bonney Coast and Kangaroo Is, S.A. (RV Southern Surveyor, ~\$860K, with McClatchie, Currie, Nayar, Payenburg)

2006 An HF Ocean RADAR system for S.A. (SA DFEEST, \$516K)

2006 The Southern Australian Integrated Marine Observing System: Mooring facility (NCRIS, \$2.84M, with Mitchell, McClatchie, Seuront, Fairweather, Kaempff)



Professor Middleton maintains links with Flinders University School of Biological Sciences

Contact

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