

# Stephen Mayfield, Molluscan Subprogram

## SARDI AQUATIC SCIENCES

SARDI



SOUTH AUSTRALIAN  
RESEARCH AND  
DEVELOPMENT  
INSTITUTE

### Areas of expertise

Abalone stock assessment, management of inshore fisheries; biology and ecology of abalone and rock lobster; spatial management.

### Countries of work experience

South Africa; Australia.

### Overview of experience and qualifications

Dr Mayfield has a wide range of skills and experience which have been developed working as a marine biologist and fisheries scientist. During this time he has published extensively, producing 18 scientific papers and >50 peer reviewed reports. He has experience in three key areas: as a research scientist, a project manager, and a teacher.

Dr Mayfield is experienced at prioritising, initiating, conducting and directing research that focuses on the biology and ecology of nearshore exploited marine species, notably abalone and rock lobster. This has included abalone stock assessment, development of practical approaches to reducing the scale of abalone assessment and management, developing immunological approaches to diet assessment, untangling the relationships among rock-lobster diet, growth rate and food availability, understanding the role of rock lobsters in the survival of juvenile abalone and assessing the efficacy of Marine Protected Areas for rock lobsters in South Africa.

### Current areas of active research include

development and implementation of fishery-independent stock-assessment methods for greenlip and blacklip abalone in South Australia, evaluating the potential for fisheries on unexploited abalone stocks, application of techniques to assess absolute abundance of abalone, optimising the spatial scale of abalone fishery management, reproductive biology of abalone and the development of stock assessment and risk analysis models.

Dr. Mayfield also has experience at supervising post-graduate students from Tertiary institutions including the University of Cape Town, Flinders University and Adelaide University. Students have undertaken projects on a wide range of topics, but throughout has been the theme

of sustainable management of inshore exploited marine species.

### Professional appointments

2008-present:  
Molluscan Fisheries Subprogram Leader, SARDI Aquatic Sciences, Adelaide, Australia.

2001-2008: Abalone Subprogram Leader, SARDI Aquatic Sciences, Adelaide, Australia.

2000-2001: Principal Oceanographer, Inshore Resources (Rock Lobster), Marine and Coastal Management, Cape Town, South Africa.

1998-2000: Post-Doctoral Research Fellow at the University of Cape Town, Cape Town, South Africa.

### Research and consulting

2007-present: FRDC Funded Research – Fine-scale assessment models for abalone fisheries (co-investigator).

2006-present: FRDC Funded Research – Fishery-dependent data collection in abalone fisheries (co-investigator).

2004-2008: FRDC Funded Research – Towards optimising the spatial scale of abalone fishery management (principal-investigator).

2003-2006: Contract Research – Distribution and abundance of greenlip abalone off Cowell.

2001-2006: FRDC Funded Research – Assessing survey methods for greenlip abalone in South Australia (co-investigator).

2001-2004: Contract Research – Feasibility of fishing for Roe's abalone (*Haliotis roei*).

### Contact

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