



## Marine Connectivity - AMSA 2009 Annual Conference 5th - 9th July 2009

There was talk about it, months and months in advance, and then it happened and exceeded all expectations! In July this year South Australia hosted the Australian Marine Sciences Association (AMSA) Annual Conference. The 46th AMSA Annual Conference may go down in the association's history as one of the most vibrant and intellectually stimulating conferences ever held. The conference theme, 'Marine Connectivity', addressed one of the current hot topics in marine sciences and by integrating various research areas saw the bringing together of a large and diverse group of participants.

Buoyed by a request from AMSA Council to raise the standard even higher than last year's great Conference in New Zealand, the Adelaide Organising Committee was faced with a big challenge. Convened at the height of the global financial crisis, would AMSA2009 be a success or a financial disaster?

Hard work and a great relationship between the ever-patient Event Coordinator Narelle Hall and the Organising Committee delivered one of the largest AMSA programs to date. The Scientific Committee reviewed over 400 abstracts with the final program consisting of 11 symposia and 11 general themes delivered in 272 oral presentations (within five concurrent sessions) and 71 posters.

Held at the Adelaide Convention Centre, the theme 'Marine Connectivity' seeks to explain linkages between populations and habitats, with the applied perspective of proper planning for Marine Protected Areas. Population genetics, oceanography and classical marine ecology are all equally essential and collaboration between scientists from various disciplines is needed to advance the understanding and analysis of marine connectivity. The program reflected this approach, having keynote talks followed by plenary presentations leading into specific symposia. These shared plenary sessions contributed greatly to the momentum gained at the Conference as well as the discussions and plans for future collaboration that were held during the breaks.

Four excellent keynote talks addressed population connectivity and dispersal (Bob Warner, USA), habitat connectivity in tropical systems (Ivan Nagelkerken, Netherlands), connectivity between oceanographic processes and plankton (Wolfgang Fennel, Germany), and biogeochemical connectivity (John Parslow, Australia). Thematic topics ran throughout the Conference program during the week, with symposia and general sessions dedicated to genetic analysis of connectivity, connectivity of coastal habitat, biogeography, trophic interactions, physical transport modelling and connectivity, zooplankton, biogeochemical cycles, and connectivity and resource protection and Marine Protected Areas. Further sessions were dedicated to effects of climate change on connectivity, recent developments in new methods for surveying seafloor habitats and studying connectivity, and policy and education. The Integrated Marine Observing system (IMOS) held a full day symposium during the Conference as well. Open theme sessions included presentations covering a wider thematic range.

A Welcome to Country by Aunt Josie Agius and the formal opening of the Conference by the Honourable Jay Weatherill, South Australian Minister for Environment & Conservation, made all participants welcome, in particular those who arrived from overseas. Participants from 10 countries outside of Australia came to Adelaide for this Conference, joining the over 360 Australian participants, all gathering defiant of the global financial crisis and swine flu scares.

Sponsorship is critical for large conferences and for AMSA2009 this was no exception. The Organising Committee set a goal of \$50,000 in sponsorship funding and was fortunate enough to exceed it. We would like to thank all our sponsors, particularly SA Water as the first ever AMSA Gold Sponsor.

Of course, no conference is complete without an inspired social program. The welcome function was held at the Art Gallery of South Australia with guests enjoying a special private viewing of the current exhibition. Everyone was happy to catch up and listen to a short address by AMSA Patron Joe Baker, who spoke with eloquence of the connectivity between scientists and wished us a successful conference. The Adelaide Convention Centre was a perfect venue, with spacious plenary and meeting rooms, exhibition hall and close proximity to the city, transport and accommodation. The fantastic catering kept everyone happy with, for example, posters presented amidst servings of local tuna and kingfish sashimi, canapés and wonderful South Australian wines. Student members were well catered for with a Student Night at the Electric Light Hotel providing students and scientists the chance to meet in an informal setting. The Conference Dinner, staged in a marine-themed illuminated hall, brought AMSA2009 to a close with plenty of student awards, followed by great food and music by Myles Mayo and his band Pop Rivets, which got almost everyone up and dancing. The evening finished with the Sherwood™ award presented to xx for best dance moves by an AMSA member over the age of 40.

AMSA conferences are also a time to celebrate outstanding achievements, and apart from the well deserved student awards presented at the Conference Dinner, one of AMSA's top awards, the Silver Jubilee, was presented during the conference to Peter Nichols (CSIRO) for his excellent work in marine chemistry. The AMSA Technical Award was presented for the first time at AMSA2009 conference to Lindsay Pender (CSIRO)

Overall it was a great conference that successfully blended an outstanding scientific program, excellent presentations, enthusiastic participants, smooth organisation and funds to make it all happen at a world-class venue. The Organising and the Scientific committees worked hard to raise the standard from previous years. All who attended left inspired and exhilarated from having been a part of this event.

Now it is time to look forward and connect again at next year's AMSA Conference in Wollongong.

*AMSA2009 Organising Committee  
Adelaide*

## WA Travel Award Winners - Student Conference Reports

### **Thibaut de Bettignies, Edith Cowan University**

I presented at the AMSA national conference in Adelaide a poster entitled: "Source and Supply of wrack: *Quantifying vectors of connectivity through a biomechanistic approach*". This presented a conceptual model I designed on kelp dislodgment during storms, the backbone of my PhD proposal. This conference was a great chance to discuss and receive a lot of feedback. I am now in touch with some people from CSIRO and hope to work with them in the future. This could enhance the outcome of my research and bring together new knowledge and skills with those already developed at *Edith Cowan University*. I also had the chance to meet with some people from *Griffith University - Australian Rivers Institute*, whom I worked with during a 5 months internship on the impact of mangrove macrofauna on sediment geochemistry.

The poster and cocktail session was particularly interesting. As soon as the session started, I was waiting in anticipation for the questions from the crowd heading towards me and then it struck me.....I am close to the bar! So, apparently the first step was the glass of wine and then, the questions. The session was very constructive, particularly for me as a non-native English speaker, to explain as clearly as possible the meaning of my research project, and I got a lot of interesting comments. Moreover, one week after the conference some people have already contacted me about my research. So, this conference, which was the first one for me, was great value and I am just looking forward to attending such a conference again.

### **David Holliday, Murdoch University**

The Australian Marine Sciences Association (AMSA) 2009 national conference was hosted by Adelaide. The conference theme was *Marine Connectivity* and, being a hot topic, it attracted a large number of scientists from across Australia with over 300 attendees. With so many researchers representing different research institutions, and from all corners of the country, the scene was set for wide-ranging research topics relating to the connectivity between marine populations.

My oral presentation entitled "Shelf-ocean connectivity: the role of eddies in cross-shelf exchange of larval fishes off SW Australia" attracted strong interest from fellow scientists and I am pleased to have had the opportunity to contribute to the session and the conference overall. It was beneficial to have the opportunity to show my work to both peers and leading researchers in the field, in particular to demonstrate the linking of physical oceanography and larval fish ecology as an integrated ecosystem-based approach to this type of research. Subsequent to the presentation of some of my PhD research, I was able to engage in many discussions in relation to my research and also possible future post doctoral collaborations. Constructive feedback on my research was of obvious benefit as were the discussions relating to key issues. All comments, criticisms and discussion will be useful when writing up publications from my PhD. In summary, it was of great benefit to meet fellow marine researchers from around the country to discuss current issues, new ideas and to develop new working relationships for future research.

### **Thea Linke, Murdoch University**

This year's meeting in Adelaide was the first AMSA conference I attended and it was a great success all around. I really enjoyed spending a week with like-minded people, hearing and chatting

about science, but also spending many hours networking and socialising outside the conference venue. I heard some brilliant talks about work related to mine (as well as finding out about other people's fun projects) and had some very encouraging feed-back after my presentation. This meeting has made me even more excited about my own research and I hope that some of the friendships and discussions started in Adelaide (a city I have fallen in love with since my year at Adelaide High in 1988/1989...) will be continued at further gatherings.

### **Natalie Millar, Murdoch University**

As an honours student it was a real privilege to present my work at the AMSA Marine Connectivity conference, Adelaide. My presentation 'Larval fishes as biological tracers of Leeuwin Current connectivity' was co-authored by David Holliday, Lynnath Beckley and Peter Thompson whom I thank warm heartedly for all of their contributions.

A large part of my work included identifying thousands of fish larvae, a daunting prospect at first. However, the expert help of Dr Pilar Olivar from Spain gave me a great start on the identification of the diverse family Myctophidae (Lanternfishes) a family often encountered on the shelf and of course oceanic regions. Also in oceanic regions were many neritic families. The occurrence of which was a key tracer in cross-shelf transport induced by strong Leeuwin Current flow. However, neritic fishes were not always trouble-free to identify as their morphological characteristics are so variable. Fortunately, expert assistance from David Holliday and Tony Miski made tricky identifications possible.

I really appreciated the very supportive and encouraging environment fostered by other students and particularly career scientists. Expert advice, comments and suggestions for my work gave me more insight into the data and ideas for discussion points in my thesis. As a student, having these opportunities to discuss my work was a definite highlight.

### **Claire Smallwood, Murdoch University**

The recent AMSA conference in Adelaide had the theme of marine connectivity and was a gathering of ~380 participants from all aspects of marine science research, industry and government. This was an excellent forum in which to present my PhD research on recreational use within the Ningaloo Marine Park. This presentation focused on one aspect of this work investigating the travel networks of visitors as they move around the marine park to participate in recreation in the coastal and marine environment, and linking this behaviour to attributes, such as marine habitats. This fitted within the symposia entitled marine connectivity and marine park planning in which there was a number of people from around Australia presenting research on various facets of marine park connectivity, the application of science to marine park design and management. There were also several other sessions relevant to my research, particularly those which focused on measuring and determining impacts from vehicles and camping on the coastal environments in which they occur. The wide diversity of disciplines represented at AMSA made it the perfect opportunity to broaden my horizons and I also attended sessions on marine animal migrations, climate change, aquaculture, food web structure and ecosystem modelling.