



The Western Australian Marine Science Institution (WAMSI) and the Australian Marine Sciences Association WA Branch (AMSA-WA) present

*Marine science in Western Australia -
Show and tell symposium*

Australian Maritime Museum, NWS Shipping Theatre
Victoria Quay, Fremantle
8.30am – 5pm, Tuesday, 9 February 2010

The seminar has been designed to provide a snapshot of marine science activities under way or that are being planned in the various geographical regions of WA in 2010.





PROGRAM

WAMSI and AMSA WA wish to acknowledge Western Australian Museum and Oceanica Consulting Pty Ltd for their support in hosting this event.

Session 1		
TIME	PRESENTATION	SPEAKER
08:30	Opening	Di Jones Western Australian Museum (WA Museum)
08:32	Introduction and house-keeping: brief introduction to WAMSI research	Steve Blake WAMSI
08:40	Node 5 Marine biodiscovery, biotechnology and aquaculture: the blue farm <i>Biodiscovery, botechnology and aquaculture</i>	Jane Fromont WA Museum
08:50	Node 1 Strategic research on WA marine ecosystems <i>Marine ecosystem science</i>	John Keesing CSIRO
09:00	Node 4 Sustainable marine ecosystems: ecologically sustainable development for the marine State's fisheries <i>Sustainable marine ecosystems</i>	Rick Fletcher Department of Fisheries (DoF)
09:10	Node 2 Climate processes, predictability and impacts in a warming Indian Ocean <i>Climate processes, predictability and impacts</i>	Chaojiao Sun CSIRO
09:20	Node 3 Managing and conserving the marine state: best practice management and underpinning science <i>Conserving marine biodiversity</i>	Chris Simpson Department of Environment and Conservation (DEC)
09:30	Node 6 Ocean science for offshore and coastal engineering <i>Ocean predictions for the offshore and coastal industry</i>	Greg Ivey The University of Western Australia (UWA)
09:40	QUESTION TIME	
9:45 - 10:30 Morning tea		



Session 2		'Hot topics' and themes
	STATEWIDE-INDIAN OCEAN - NEWSFLASHES	
10:30	United Nations Educational, Scientific and Cultural Organisation, Office of the Intergovernmental Oceanographic Commission (UNESCO OIOC) Perth office and the Indian Ocean Global Ocean Observing System (IOGOOS)	Nick D'Adamo IOC UNESCO
	SIBER - Sustained Indian Ocean biogeochemical and ecosystem research	Lynnath Beckley Murdoch University
	The WA charter boat industry	Carly Bruce DoF
	Vision of sea and shorebirds	Joao Paulo Coimbra UWA
	The evolution of light detection: eco-physiological impacts on biodiversity, sustainability and health	Shaun Collin UWA
	The DoF Fisheries and Marine Science Library: a rich source of marine science information	Vicki Gouteff DoF
	Australian national facility for ocean gliders	Christine Hanson UWA
	Deep ocean tsunami buoys	Nick D'Adamo IOC UNESCO
	Department of Transport – oceanographic data collection activities	Rodney Hoath Department of Transport
	WA commercial fisheries	Eva Lai DoF
	A hierarchy of coastal management units: the compartmentalisation of the WA coast	Chris Nutt DEC
	Coastal adaptation: engagement at the knowledge/policy interface	Laura Stocker Curtin University
	BLUELINK: forecasting the underwater weather	Nick D'Adamo IOC UNESCO
	Remote activity monitoring and assessments	Michael Tuffin DoF
	WA recreational fishing	Brent Wise DoF
	QUESTION TIME	





	KIMBERLEY Region – NEWS FLASHES	
	Overview	Luke Smith Woodside Energy Ltd
	Growth history of the Scott Reef platform	Lindsay Collins Curtin University
	Biological oceanography of the Kimberley Shelf	Lynnath Beckley Murdoch University
	The Kimberley Woodside collection project	Clay Bryce WA Museum
	Overview of marine megafauna field studies to support impact assessment in the west Kimberley	Luke Smith Woodside Energy Ltd
	Constraints on the primary production of the Kimberley shelf	James McLaughlin CSIRO Marine and Atmospheric Research
	Broome: what do traps and baited remote underwater video stations tell you about fish assemblages?	Euan Harvey UWA
	Coral reefs of the Kimberley, surprising and significant	Andrew Heyward Australian Institute of Marine Science (AIMS)
	Movement behaviours and habitat descriptions of west Kimberley dugongs: a community based approach	Daniel Oades Kimberley Land Council
	Recent studies in the northern Canning and Kimberley bioregions	Cam Sim Office of the Environmental Protection Authority
	Diet of zooplankton and benthic organisms off WA coast: insight from fatty acids and benthic pelagic coupling	Joanna Strzelecki CSIRO Marine and Atmospheric Research
	Biological oceanography of the Kimberley	Anya Waite UWA School of Environmental and Systems Engineering
	QUESTION TIME (10 minutes)	
	PILBARA and GASCOYNE Regions (including Ningaloo and Shark Bay) – NEWS FLASHES	
	Insights into larval and adult dispersal of spangled emperor from combined genetic and hydrodynamic analysis	Oliver Berry CSIRO Marine and Atmospheric Research
	Minimising gear conflict and resource sharing issues in the Shark Bay trawl fisheries	Arani Chandrapavan DoF





	Ninglao Reef deeper water habitat assessment using autonomous underwater vehicle optical imagery	Jamie Colquhoun AIMS
	Coquinas, stromatolites and tidal flat deposition facies is a modern carbonate system at Shark Bay	Ricardo Jahner Curtin University
	Effect of fishing on fish: it's all about the scales	Ben Fitzpatrick UWA
	Pluto environmental offsets	Priscilla Hubbard Woodside Energy Ltd
	The sponge gardens of Ningaloo Reef, Western Australia	Andrew Heyward AIMS
	Human use of Ningaloo Marine Park	Lynnath Beckley Murdoch University
	Intra-regional travel networks in the Ningaloo Marine Park	Claire Smallwood Murdoch University
	Place attachment at southern Ningaloo	Joanna Tonge Murdoch University
	Elasmobranch research in northern WA	Mark Meekan AIMS
	Modelling shore-based recreational use of the Ningaloo Marine Park	Florian Mayer Murdoch University
	Monitoring for introduced marine pest species at high-risk WA ports	Mathew Hourston DoF
	Introduced marine pest monitoring in Dampier Port	Sam Bridgwood DoF
	Ningaloo: intense and deep	Euan Harvey UWA
	Oceanographic control of coral health: implications for climate change impacts	Saskia Hinrichs UWA
	Climate change and reef fishes	Mark Meekan AIMS

12:00 - 1:15 (approximately)

Lunch





Session 3 'Hot topics' and themes		
	PILBARA and GASCOYNE Regions (including Ningaloo and Shark Bay)	
1:30	Habitat mapping with hyperspectral remote sensing: Ningaloo	Halina Kobryn Murdoch University
	Ningaloo reef - combining hyperspectral and topographic information to classify geomorphic features	Kristin Wouters Murdoch University
	Population and foraging ecology of manta rays within Bateman Bay	Frazer McGregor Murdoch University
	Pilbara demersal scalefish managed fishery	Brett Molony DoF
	Economics of coastal disaster-risk and resilience: a case study of Exmouth	Rebecca Roberts Murdoch University
	Production and transport of particulate matter in a regional current system adjacent to a fringing reef	Cecile Rousseaux UWA
	Movement, feeding and behaviour of reef sharks at Ningaloo Reef	Conrad Speed AIMS Charles Darwin University
	Assessment of groundwater impacts on the Ningaloo Reef system	Alexandra Stevens Curtin University
	Geomorphic and sedimentary environments for conserving Ningaloo's biodiversity	Emily Twiggs Curtin University
	Is dissolved matter the missing link at Ningaloo?	Anya Waite UWA SESE
	QUESTION TIME (10 minutes)	
	MID WEST Region (including Geraldton, Oakagee and Jurien) – NEWS FLASHES	
2:00	Overview	Luke Twomey Oceanica Consulting
2:10	Assessment of bycatch in the Gascoyne and west coast bioregions	Richard Evans DoF
	Tracing sources and fate of production using fatty acids in Jurien Bay	Glen Hyndes Edith Cowan University (ECU)
	Sediment mapping for identification of sediment sources, transport pathways and sinks for the inshore waters and coast between Greenough and Buller rivers (Geraldton)	Sira Tecchiato Curtin University
	QUESTION TIME	



PERTH METROPOLITAN Region (including Peel region) – NEWS FLASHES		
2:25	Overview	Brett Molony DoF
2:35	Population viability analysis of little penguins in the Perth metropolitan region	Belinda Cannell Murdoch University
	The impact of black swan grazing (<i>Cygnus atratus</i>) grazing on the seagrass <i>Halophila ovalis</i> in the lower Swan River estuary	Gary Choney ECU
	Factors influencing the life-history characteristics of black bream (<i>Acanthopagrus butcheri</i>) in the Swan-Canning Estuary	Alan Cottingham Murdoch University
	Larval fish assemblages associated with pink snapper spawning aggregations in embayments in south-western Australia	Nick Breheny Murdoch University
	Current status of the fish faunas of the Peel-Harvey and Leschenault estuaries	Peter Coulson Murdoch University
	The biology of the western striped trumpeter (<i>Pelates octolineatus</i>)	Lauren Veale Murdoch University
	Myctophid vision: seeing and being seen in the mesopelagic zone	Fanny de Busserolles UWA
	The role of electroreception in the feeding behaviour of elasmobranchs	Ryan Kempster UWA
	Determination of the diets of snapper and silver trevally and construction of a food web for the demersal fish community in south-western Australia	Ben French Murdoch University
	Light reductions drive faunal changes in an amphibolis griffithii seagrass systems	Adam Gartner ECU
	Management strategy evaluation	Emily Fisher Murdoch University
	Development and validation of an estuarine health index using fish community characteristics	Chris Hallett Murdoch University
	Biological (fisheries) oceanography of the Leeuwin Current	David Holliday Murdoch University
	The use of macro-invertebrate communities as bio-indicators of a shallow-water marine ecosystem in WA	David Kirke Curtin University
	Trophic interactions in the Swan River	Thea Linke Murdoch University
	Benthic primary production and nutrient supply in Perth coastal waters	Martin Lourey CSIRO Marine and Atmospheric Research
	Big picture analysis of social, economic and ecological impacts in the Peel Harvey estuary	Sarah Metcalf DoF





	Tracking lobsters using acoustic telemetry (Vemco Radio Acoustic Positioning)	Pippa Moore ECU
	Exploring the sensory systems of deep-sea sharks with an emphasis on visual capabilities	Amy Newman UWA
	Shedding light on the evolution of the vertebrate eye: photoreceptive systems in hagfishes, lampreys and teleosts	Simone Niedermueller UWA
	Investigating sensory indicators during feeding with live feed and microdiet to yellowtail kingfish (<i>Seriola Lalandi</i>) to lower costs and enhance feeding process in aquaculture industry	Nicolas Nagloo UWA
	Developing an age-based monitoring approach fro Australian herring	Brett Molony DoF
	The role of herbivory in ameliorating the effects of nutrient enrichment in marine ecosystems	Britta Munkes ECU
	Kelp wrack as a trophic subsidy in seagrass ecosystems	Charu Lata Singh ECU
	Distribution of krill within a Leeuwin Current eddy	Alicia Sutton Murdoch University
	QUESTION TIME (5 minutes)	
03:30 - 04:00 Afternoon tea		
Session 4 'Hot topics' and themes		
	SOUTH WEST (Bunbury to Cape Leeuwin) – NEWS FLASHES	
4:00	Overview	Gary Kendrick UWA
	Pilot study to develop a socio-economic assessment of fisheries (recreational and commercial) in the West Coast bioregion	Joseph Christensen Murdoch University
	Nitrogen cycling on the south-west WA shelf using a 3-D model	Jim Greenwood CSIRO Marine and Atmospheric Research
	South West Capes: Understanding seasonal variability in fish assemblage structure	Jessica Meeuwig UWA
	The influence of seagrass beds on resident macroinvertebrates in artificial habitat collectors in Geographe Bay, WA	Christine Parfitt Curtin University
	Marmion lagoon measurement program, July 2007 to May 2008	Graham Symonds CSIRO Marine and Atmospheric Research
	Exploration of interactions between recreational fishers, fish and management in south-western Australia, using loop analysis and agent-based modelling	Calais Tink Murdoch University
	Downscaled hydrodynamic simulations of southwest Australian coastal waters	Liejun Zhong CSIRO Marine and Atmospheric Research





	SOUTH COAST Region (Cape Leeuwin east) – NEWS FLASHES	
4:20	Overview	Ewan Buckley DEC
4:30	Understanding the spawning dynamics of orange roughy on the Cascade Plateau, south-eastern Tasmania	Adrian Hordyk Murdoch University
	The fish faunas of south coast estuaries	Steeg Hoeksema Murdoch University
	Developing an age-based monitoring approach for Australian herring	Brett Molony DoF
	The influence of seagrass beds on resident macroinvertebrates in artificial habitat collectors in Geopraphe Bay, Western Australia	Christine Parfitt Curtin University
	Relationships between habitats types and faunas in Broke Inlet (south west Western Australia)	James Tweedley Murdoch University
	Investigating seagrass wrack degradation rates and processes	Candace Willison ECU
	The funnel through the vortex: the wine glass effect	Anya Waite UWA
	QUESTION TIME (5 minutes)	
4:55	CLOSURE and thanks	Peter Rogers WAMSI Chairman Karen Hillman AMSA WA

