



2017 WAMSI RESEARCH CONFERENCE

Dredging Science Node

Program

Wednesday 22nd – Thursday 23rd November 2017
 State Library of Western Australia, Perth

Day 1 – Wednesday 22nd November 2017

SESSION 1: Opening and keynote presentations CHAIR: Naomi Brown		
Time	Presentation	Speaker
9:15	Introduction and Welcome to Country.	Dr Richard Walley OAM
9:30	Opening the 2017 WAMSI Research Conference.	Minister Dave Kelly Minister for Water; Fisheries; Forestry; Innovation and ICT; Science
9:40	WAMSI – Delivering research priorities for Western Australia	Naomi Brown, Chair WAMSI
9:50	<u>Keynote Presentation</u> – Building a Science and Knowledge base for Environmental Impact Assessment.	Tom Hatton, Chair WA DWER
10:10	The power of collaborative science: an industry perspective	Mike Utsler, Chief Operating Officer Woodside Energy
10:30	A NT perspective on managing dredging.	Paul Vogel, Chair NT EPA
10:50- 11:15	Morning Tea	

SESSION 2: Overview and Pressure Field Characterisation and Prediction		
CHAIR: TBC		
11:15	Dredging Science Node – Purpose and pathways to adoption	Ray Masini, DWER
11:45	Characterisation of dredging pressures in WA – review of the datasets from previous dredging related environmental monitoring programs	Ross Jones, AIMS Rebecca Fisher, AIMS Muhammad Abdul Wahab, AIMS
12:15	Generation and Transport of Dredge Plumes – Synthesis of knowledge and considerations for management	Chaojiao Sun, CSIRO
12:45-1:45	Lunch	
SESSION 3: Ecological Response Prediction		
CHAIR: TBC		
1:45	Response of corals to dredging: hazard to risk	Ross Jones, AIMS
2:15	Defining thresholds and indicators of seagrass response to dredging - Synthesis of knowledge and considerations for management	Paul Lavery, ECU
2:45	Defining thresholds and indicators of sponge response to dredging - Synthesis of knowledge and considerations for management	Muhammad Abdul Wahab, AIMS
3:15-3:45	Afternoon Tea	
SESSION 4: Environmental windows for critical ecological processes		
CHAIR: TBC		
3:45	Effects of dredging on coral reproduction - Thresholds and indicators and synthesis of knowledge and considerations for management	Andrew Negri, AIMS
4:15	Effects of dredging related pressures on critical ecological processes for finfish - Synthesis of knowledge and considerations for management	Euan Harvey
4:35	Effects of dredging related pressures on critical ecological processes for organisms other than fish or coral	Gary Kendrick, UWA
4:55	Dredging Science Node - An Overview: what we have learned	Ray Masini, DWER
5:15	Close	

Day 2 – Thursday 23rd November 2017

SESSION 5: Pressure Field Characterisation and Prediction		
CHAIR: TBC		
9:15	Modelling far-field dredging generated sediment plumes – guidance for proponents and consultants	Paul Branson <i>et al.</i> (CSIRO)
09:45	Remote Sensing of Dredge Plumes – how and how not	Peter Fearn <i>et al.</i> (Curtin University)
10:00	Sediment deposition over benthic habitats – corrections for sediment transport models	Ryan Lowe <i>et al.</i> (UWA)
10:15	Continuous in situ monitoring of sediment deposition in shallow benthic environments	James Whinney <i>et al.</i> (JCU)
10:30	Sub-lethal indicators of dredging pressures – mucous sheet production in <i>Porites</i> corals	Pia Bessell-Browne <i>et al.</i> (UWA)
10:45-11:15	Morning Tea	
SESSION 6: Ecological Response Prediction (CORALS AND SEAGRASS)		
CHAIR: TBC		
11:15	Specific and interactive effects of total suspended solids, light attenuation and sediment deposition on adult corals	Pia Bessell-Browne <i>et al.</i> (AIMS/UWA)
11:30	Dredging and bleaching events	Ross Jones <i>et al.</i> (AIMS)
11:45	Predicting coral mortality based on water quality during dredging and deriving operational thresholds	Rebecca Fisher <i>et al.</i> (AIMS)
12:00	Measurement and modelling of key demographic processes in corals of the Dampier Archipelago	Russ Babcock <i>et al.</i> (CSIRO)
12:15	Natural dynamics and seasonality of tropical seagrasses and recovery mechanisms of seagrass following disturbance – implications for environmental impact assessment	Paul Lavery (ECU) Mat Vanderklift <i>et al.</i> (CSIRO)
12:30	Genetic variability within seagrass and implications for recovery potential	Kathryn McMahon <i>et al.</i> (ECU)
12:45-1:45	Lunch	

SESSION 7: Ecological Response Prediction (SEAGRASSES, SPONGES and)		
CHAIR: TBC		
1:45	Thresholds and indicators of seagrass response to dredge pressures	Gary Kendrick, UWA John Statton, UWA
2:00	The influence of light quality on seagrasses	Simone Strydom, ECU
2:15	Sponges of the Pilbara – a biodiversity hotspot	Muhammad Abdul Wahab AIMS Jane Fromont <i>et al.</i> WA Museum
2:30	Comparisons of benthic filter feeder communities before and after a large-scale capital dredging program.	Muhammad Abdul Wahab, AIMS
2:45-3:15	Afternoon Tea	
SESSION 8: Ecological Response Prediction (CORAL EARLY LIFE HISTORY STAGES)		
CHAIR:		
3:15	Coral reproduction in Western Australia	James Gilmour, AIMS Russ Babcock, CSIRO
3:30	Laboratory experimentation on the effects of dredging on fertilisation, larval development and settlement of corals.	Gerard Ricardo, AIMS Andrew Negri, AIMS
3:45-4:00	Close of Conference and Closing Remarks	Naomi Brown, WAMSI Chair

