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DIVERSE DEPTHS: SEE BENEATH THE SHALLOWS FORUM

CUSTOMS HOUSE, SYDNEY

12 MARCH 2013

Published by Sydney Coastal Councils Group Inc.

April 2013

Contact: Level 14, 456 Kent Street
GPO Box 1591, SYDNEY NSW 2001
info@sydneycoastalcouncils.com.au
www.sydneycoastalcouncils.com.au

Sydney Coastal Councils Group Inc.

The Sydney Coastal Councils Group Incorporated (SCCG) is a voluntary Regional Organisation of Councils representing 15 Sydney coastal councils which together cover a land area of 1346 km², encompass 11 waterways and represent ~1.4M people. Established in 1989, its mission is to provide leadership through a coordinated approach to sustainable coastal management. This Mission underpins six outcome statements which address capacity building, research, information and knowledge exchange, advocacy, and integrated planning and management.

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1. INTRODUCTION

The SCCG are pleased to report on the Diverse Depths: See Beneath the Shallows Forum held on 12 March 2013 at Customs House. The event saw 49 participants representing 30 stakeholders and organisations.

Context

Australia's oceans, coasts and estuaries are biodiverse notwithstanding their generally nutrient poor waters. However, climate change and expanding human populations are intensifying the pressures upon marine organisms. SCCG Member Councils recognised and identified these as capacity building subject areas in order to manage their local coastal and marine areas.

Research and monitoring of the marine environment combined with education and good communication assist understand the cause and effect of actual and expected changes and provides direction as to how these assets can be better managed.

Forum

The agenda, as seen in Figure 1, consisted of ten excellent speakers representing organisations from across Sydney and NSW.

Presentations covered:

- implications of climate change for marine biodiversity
- habitats present on our coasts
- the latest research on marine biodiversity within Sydney Harbour
- algae and the importance of monitoring algal blooms
- DPI Fisheries research and monitoring activities on the NSW coast
- threats to geodiversity
- case studies from Mosman Council's Environmental Manager on balancing asset management with the preservation of biodiversity
- the Catlin Underwater Seaview Survey – a project seeking to establish a visual baseline of our Great Barrier Reef.

The Minister for Sustainability, Environment, Water, Population and Communities, the Honourable Tony Burke MP addressed participants via a video address on the importance of the established Commonwealth Marine Reserves. The Minister mentioned the importance of Local Government's role in coastal management and commended them on the work done so far.

This event fostered the sharing and transfer of knowledge of marine issues, particularly biodiversity, climate change effects, and management issues. It was a successful day that exhibited current Sydney research and monitoring activities as well as a variety of strategies to assist coastal biodiversity resilience to climate change. We were very lucky to receive an opening address by ocean pioneer and Ambassador Ms. Valerie Taylor OAM, who has observed first-hand for 50 years the effects of over-fishing and habitat degradation on marine biodiversity.



**DIVERSE DEPTHS
SEE BENEATH THE SHALLOWS FORUM**

Tuesday 12 March 2013
THE BARNET LONG ROOM, CUSTOMS HOUSE LEVEL 1, 31 ALBERT ST, CIRCULAR QUAY, SYDNEY

0900	REGISTRATIONS OPEN	
0930	INTRODUCTION & WELCOME	Cr Cathy Griffin , SCCG Chairperson Manly Council
0940	OPENING ADDRESS	Ms Valerie Taylor AM
1000	ESTABLISHMENT OF COMMONWEALTH MARINE RESERVES Video Address to the SCCG from Minister Tony Burke MP , Federal Minister for Sustainability, Environment, Water, Population and Communities	
1010	PROMETHEUS UNBRIDLED: THE IMPLICATIONS OF CLIMATE CHANGE FOR MARINE BIODIVERSITY Dr Katherina Petrou , Chancellor's Postdoctoral Research Fellow, Plant Functional Biology & Climate Change Cluster, University of Technology Sydney	
1050	FRINGE DWELLERS: LIFE & HARD TIMES IN THE INTERTIDAL ZONE	Dr Paul Adam , Visiting Fellow University of NSW
1120	MORNING TEA	
1150	BANG FOR BUCK: THE CHALLENGE OF CHOOSING INDICATORS OF ANTHROPOGENIC IMPACTS IN ESTUARIES	Dr Katherine Dafforn , Research Associate University of NSW and Sydney Institute of Marine Science
1220	SYDNEY HARBOUR: ITS DIVERSE BIODIVERSITY	Dr Pat Hutchings , Senior Principal Research Scientist Australian Museum
1250	LUNCH	
1320	ALGAL BLOOMS: THE GOOD, THE BAD AND THE DOWNRIGHT TOXIC!	Ms Penelope Ajani , PhD Student Macquarie University and the Sydney Institute of Marine Science
1400	ESTUARINE & MARINE MONITORING & MANAGEMENT AROUND SYDNEY	Dr Bob Creese , Acting Director of Fisheries Research Department of Primary Industries, Fisheries
1430	COASTAL GEODIVERSITY UNDER THREAT	Dr Peter Mitchell OAM, Director Groundtruth Consulting
1500	AFTERNOON TEA	
1530	MANAGEMENT OF ASSETS & PROTECTING MARINE LIFE : FINDING THE BALANCE	Ms Belinda Atkins , Manager of Environmental Services Mosman Council
1600	UNDERWATER SYDNEY AND THE CATLIN SEAVIEW SURVEY	Mr Robin Barham Underwater Earth
1630	FORUM CLOSE	

Figure 1: Diverse Depths See Beneath the Shallows Agenda

2. ATTACHMENTS

To access the **biographies** and **synopses** for this event, please see the Event Program:

http://www.sydneycoastalcouncils.com.au/sites/default/files/diverse_depth_see_beneath_the_shallows_program.pdf

To access the **presentations** and **videos** for the event, please visit the SCCG web page:

www.sydneycoastalcouncilsgroup.com.au/diverse_depths_see_beneath_the_shallows

3. EVALUATION

At the end of the Forum, a survey was conducted to evaluate the event. A five level rating system was utilised to appraise the key elements of the day and a series of questions were asked to acquire the following information:

- 3.2 The outcomes for participants**
- 3.3 Participant's comments on presentations and suggestions for improvement.**
- 3.4 What participants thought were the top marine issues in Sydney**

3.1 Key Elements

The Evaluation Form employed a five level rating system addressing four key elements of the Forum (Fig. 1). Half of the participants completed the survey. Overall, results fell within the excellent to very good range of the rating scale (Fig 1).

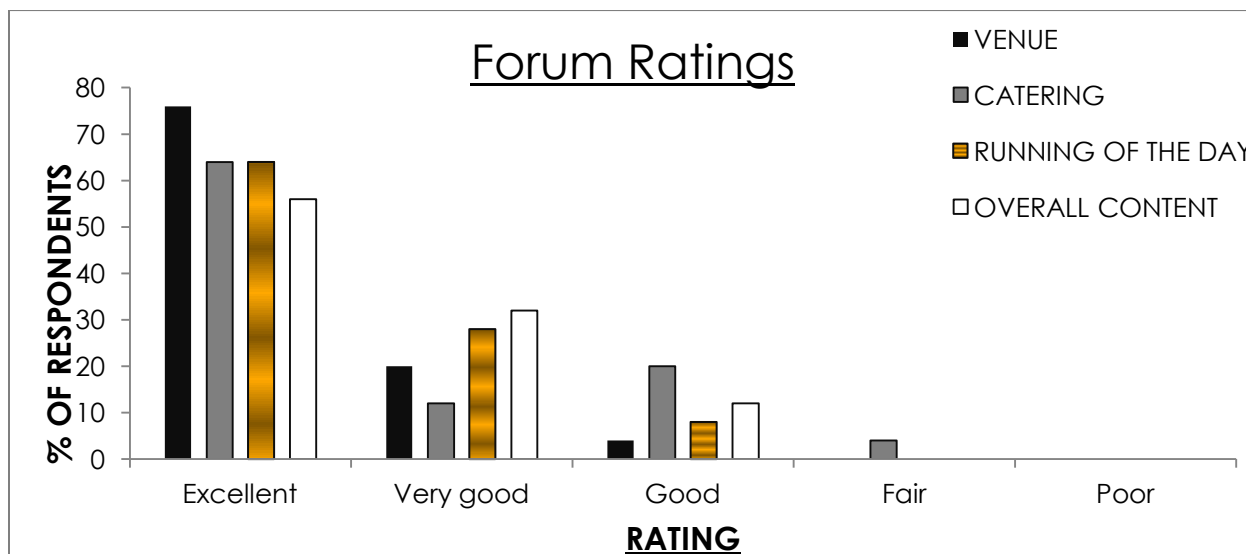


Figure 1: Column graph rating the forum venue, catering, running of the day and overall content.

Interaction and relationship building between participants and understanding priorities of other councils and agencies were identified as valuable elements of the Forum. To support and encourage networking and collaboration across organisations, a list of forum participant contact details has been distributed with this report to the participants.

3.2 Outcomes for Participants

When surveyed what they took away from the day, participants responded mostly in the positive as seen in Fig 2.

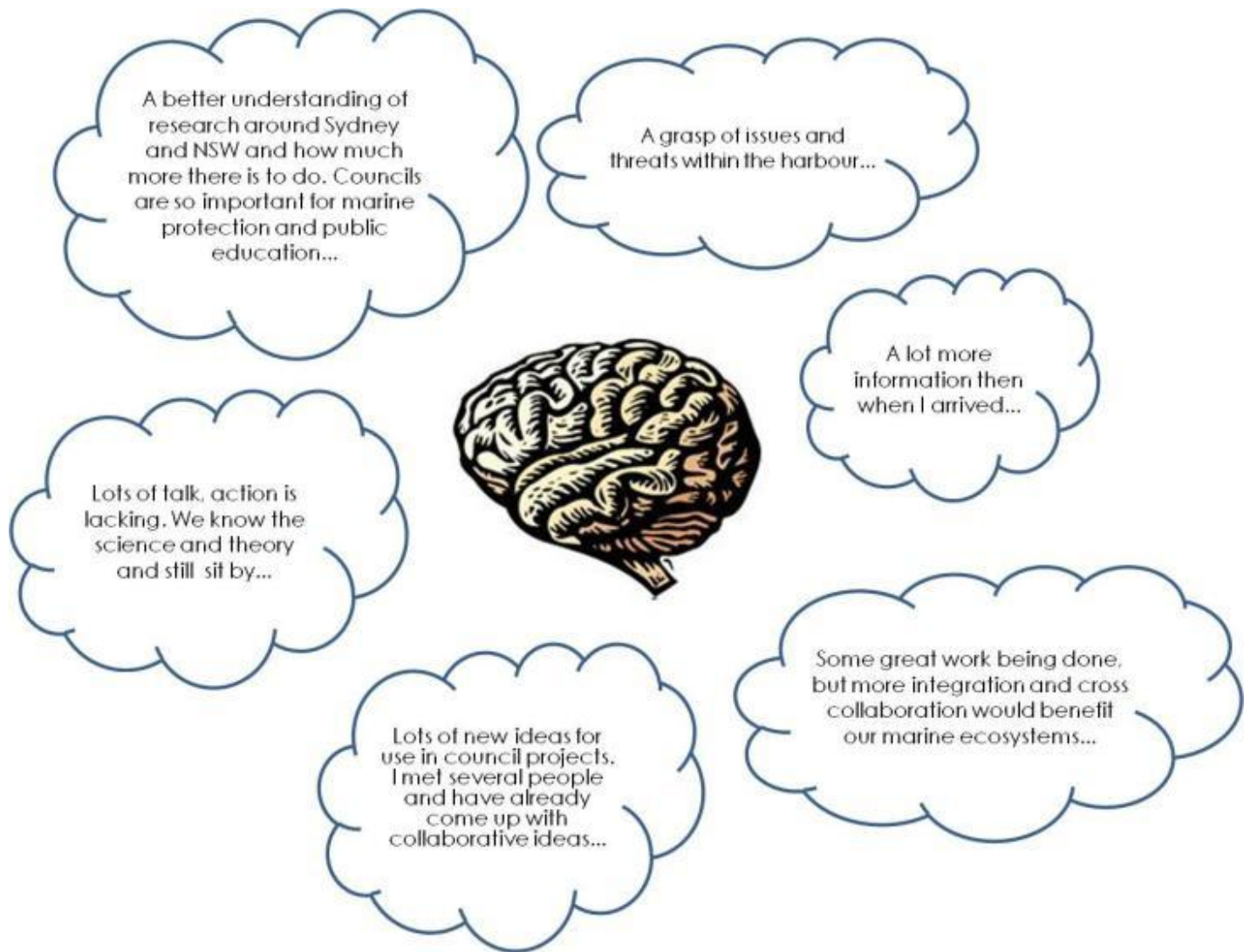


Figure 2: Responses from participants when surveyed what they took away from the day.

3.3 Comments on Presentations and suggestions for improvement

Overall, the speakers were dynamic and engaging and their content thought-provoking and relevant. As well as affirmative verbal feedback, participant comments via the survey demonstrated positive responses to the presentations, some of which feature below:

- *Good representation of presenters, all were engaging and relevant.*
- *Interesting and varied topics covered.*
- *Celebration of council professionalism in dealing with environmental issues.*
- *Structure good, sections were good length.*

There were some constructive suggestions for improvement at the next event, including the request for additional Council case studies. The need for greater audience engagement was also identified. Suggestions included:

- Possibly some further participation by attendees
- The need to amplify question from the floor
- Explore ways to get disparate people in round tables talking about action and sharing ideas.

3.4 Marine biodiversity issues as identified by forum participants

Participants were asked to identify their top marine issues for biodiversity in Sydney before attending the Forum and after the presentations. As seen in Table 1, "Broad issues" identified by respondents were ranked in order of most mentioned (e.g. pollution is the major cause of concern amongst forum participants). There was a general consensus that a lack of funding is limiting public conservation education and awareness. Another common concern from respondents indicated the need for public education and engagement strategies on the issues identified and a need to engage the public in conservation activities.

The issue that there is public knowledge of environmental issues but still indifference and/or disconnection was also mentioned.

Other important issues specific to Sydney included:

- The continued need to educate user groups with the aim to decrease degradation to marine habitats e.g. damage done by boat moorings.
- Funding to assist long-term monitoring research.

Table 1: The top marine biodiversity Issues in Sydney identified by forum participants pre and post the 12 March Forum.

<u>Top Marine Biodiversity Issues</u>	<u>Pre-Forum</u>	<u>Post-Forum</u>
BROAD ISSUE	SPECIFIC ISSUE	
1. POLLUTION	<ul style="list-style-type: none"> • Water quality • Mismanaged pollution and run-off • Impacts of land and water pollution, and contamination • Macro and micro (plastic and other) pollution • Historical pollution trapped in marine sediment • Sedimentation and nutrification 	<ul style="list-style-type: none"> • The ongoing impact of urban run-off on the marine environment and the flow-on effects • Impacts of land and water pollution, and contamination • Macro and micro (plastic and other) pollution
2. IMPACTS OF CLIMATE CHANGE	<ul style="list-style-type: none"> • Impacts of climate change, particularly sea level rise and ocean acidification 	<ul style="list-style-type: none"> • Impacts of climate change, particularly sea level rise and ocean acidification • A rise in sediment contamination in Sydney Harbour • Sea temperature rise
3. BIODIVERSITY	<ul style="list-style-type: none"> • Lack of biodiversity knowledge • The need for greater biodiversity assessment and monitoring • Importance of the identification and use of appropriate indicator species • Threats to biodiversity: habitat destruction and species extinction • Sydney Harbour fish stock and health 	<ul style="list-style-type: none"> • retaining the varied marine habitats and to create resilience of species and enable best chance to adapt to climate change • Lack of scientific knowledge and MER data past and present • All issues affecting the biodiversity under the umbrella of human-induced change • Threats to biodiversity: habitat destruction and species extinction • The need for scientific knowledge to be translated into sustained monitoring/conservation programs • diversity of marine environment despite impacts • Loss of biodiversity • Importance of the identification and use of appropriate indicator species

		<ul style="list-style-type: none"> • The importance of estuary and saltmarsh habitats • The impact of introduced species
4. LAND USE AND PLANNING AND DEVELOPMENT	<ul style="list-style-type: none"> • Designing seawalls for biodiversity • Impacts of urban land use/planning decisions (same) • Monitored Environmental Impact Assessment of all developments • Unplanned or unregulated development. 	<ul style="list-style-type: none"> • Impacts of land use/planning decisions • Opportunities for future management and the role of council • Need for studies around Barangaroo and Darling Harbour to monitor contamination (e.g. thermal injection into harbour) • Seawall security • Long-term consequences of urbanisation
5. FISHING	<ul style="list-style-type: none"> • The impacts of over fishing • damage of fishing anchors 	<ul style="list-style-type: none"> • The impacts of over fishing • The need for need for more formal protection such as additional Sanctuary/No-Take zones in Sydney

4. SUMMARY

The Diverse Depths: See Beneath the Shallows forum was a successful event that exhibited current marine biodiversity research and monitoring projects as well as a variety of strategies to assist coastal biodiversity resilience to climate change. The SCCG would like to thank all presenters and participants.

The SCCG facilitates increased awareness and capacity building to representatives to build the role and capacity of Member Councils to sustainably manage the urban and coastal marine environment. This Forum addressed a wide range of marine biology and biophysical topics of interest to participants and provided an insight of the issues and threats present in the urban marine environment. Presentations highlighted the need for improved baseline knowledge of biodiversity and improved land use and planning along Sydney's estuaries and coasts.

This forum emphasised that knowledge sharing and collaborative efforts are fundamental to monitor and manage our environment sustainably. An important outcome of the day was the improved communication and relationship building between scientists and Local Government which will contribute to opportunities to improve marine management.



**SCCG
Capacity
Building
Program**

Sydney Coastal Councils Group Inc.

councils caring for the coastal environment

Level 14, Town Hall House, 456 Kent Street
GPO Box 1591, SYDNEY NSW 2001

t: +61 2 9246 7326 | **f:** +61 2 9265 9660

e: info@sydneycoastalcouncils.com.au

w: www.sydneycoastalcouncils.com.au.com.au