

## **THEME 4: SCIENCE LEADERSHIP AND SUPPORT**

### **Research Coordinators**

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### **Background**

IOCI 3 is a major research programme. In addition to the results generated by each project against its own milestones, the Initiative is expected to deliver a holistic and integrated understanding of climate change and variability to State partners and stakeholders. This requires:

- Effective coordination of the programme across the research providers and with the State.
- Regular presentations to staff from State agencies and to public audiences.
- Synthesis of emerging messages into a policy-ready form that is useful for government and industry.

### **Achievements**

#### *Events*

- 2<sup>nd</sup> IOCI 3 workshop, Perth, 26-27 October 2009
- Climate and Weather Extremes Workshop, Royal Freshwater Bay Yacht Club, Peppermint Grove, 3-4, June 2010

### *Engagement*

- AECOM and Main Roads – Climate Change Datasets Pilot Project: Swan River Catchment.
- Atmospheric Circulation Reconstructions over the Earth project (<http://www.met-acre.org/Home>)
- Department of Climate Change and Energy Efficiency
- NCCARF
  - Freshwater Biodiversity National Adaptation Research Plan
  - Water Resources and Freshwater Biodiversity Adaptation Research Network
- Western Australian Marine Science Institution

### *Overseas Invitations*

- Dr Bates:
  - European Union Water and Global Change (WATCH) General Assembly, Potsdam, Germany, 3-4 November 2009.
  - IPCC Expert Meeting on *Assessing and Combining Multi-Model Climate Projections*, Boulder, Colorado, 25-27 January 2010.
- Dr Frederiksen was invited by Professor Xiaogu Zheng to visit:
  - College of Global Change and Earth System Science, Beijing Normal University, China, 27 March – 23 April, 2010 for collaborative research on IOCI 3 related projects.

### *Points of Access for Data Retrieval*

- Bureau of Meteorology – Project 1.4

## **List of IOCI-Related Presentations at National and International Conferences, symposia and Workshops**

*Presentations to Interdepartmental Climate Change Policy sub-Committee - on IOCI Stage 3 - overview and progress, 31 July 2009*

Bates, B.C., *Overview and Progress of Stage 3.*

Marinelli, M., *Project 1.4 – Regionally Specific Climate Data and Monitoring for the North-West and South-West to Support the Understanding of Past, Present and Future Climate.*

Charles, S.P., *Project 2.3 – Statistical Downscaling for the North-West.*

Charles, S.P., *Project 3.1 – Statistically Downscaled Climate Change Projections for the South-West.*

Palmer, M., *Project 2.4 – Physical-Statistical Modelling of Extreme Events.*

Palmer, M., *Project 3.2 – Climate Extremes: Potential Forecast Skill and Climate Change Scenarios.*

*2<sup>nd</sup> IOCI Annual Workshop, Perth, 26-27 October 2009.*

Bates, B.C., *Overview of IOCI Stage 3.*

Frederiksen, C.S., *Detection and Attribution.*

Ganter, C., *Regional Climate and Weather Systems.*

Frederiksen, C.S., *Limits of Seasonal Predictability .*

Marinelli, M., *Regionally Specific Climate Data and Monitoring for WA.*

Rotstayn, L. *The CSIRO mk3.6 GCM: Simulation of Rainfall in Australia's North West.*

McBride, J., *Tropical Cyclones in the North West.*

Charles, S.P., *Statistical Downscaling for the North West.*

Abbs, D., *Dynamical Downscaling of Tropical Cyclones for the North West.*

Charles, S.P., *Statistically Downscaled Climate Change Projections for the South West.*

Palmer, M. *Rainfall Extremes: Potential Forecast Skill and Climate Change Scenarios for the South West.*

#### Other

Bates, B.C., *Introduction to Climate Change Science*, invited presentation, University of Western Australia Business School, Perth, 29 September 2009.

Bates, B.C., *Global Warming and its Likely Impact on the Great Southern*, invited presentation, Carbon Pollution Reduction Scheme, Mount Barker, 7 October 2009.

Bates, B.C., *Adaptation under Climate Uncertainty: Challenges and Opportunities*, keynote address, 32<sup>nd</sup> Hydrology and Water Resources Symposium, 1 December 2009.

Bates, B.C., *Climate Change: Menace, Myth or Conspiracy*, invited presentation, Western Australian Wetlands Conference, Perth, 2 February 2010.

Bates, B.C., *Climate Change Science*, invited presentation, Peel Climate Change Adaptation Summit, Mundijong, Perth, 12 March 2010.

Bates, B.C., *Global Climate Change Predictions and Local Impacts*, invited presentation, Western Suburbs Regional Organisation of Councils (WESROC) Climate Change Information Forum, Bold Park, 17 March 2010.

Bates, B.C., R. Chandler, R., S.P. Charles, and E.P. Campbell, *Assessment of Apparent Non-Stationarity in Hydroclimatic Series: A Case Study from Western Australia*, invited presentation, Burges Symposium, Seattle, Washington, 25 March 2010.

Bates, B.C., *Capacity, Resources and Barriers; and the Communication Tools Needed*, DCCEE Climate Extremes Workshop, Melbourne, 10 May 2010.

Bates, B.C., *Managing Water Resources under Climate Uncertainty: Challenges and Opportunities*, 2010 Climate Adaptation Futures Conference, Gold Coast, Queensland, 30 June 2010.

Frederiksen, C.S., S. Grainger and X. Zheng, 2009: *Australian rainfall variability and predictability : the relative importance of slow and intraseasonal processes*. GWEX 2009: 6th International Scientific Conference on the Global Energy and Water Cycle, 24-28 August 2009, Melbourne, Australia

Frederiksen, J.S. and C.S. Frederiksen, 2009: *Interdecadal Changes in Southern Hemisphere, Storms and Rainfall*. MOCA-09: Joint Assembly of IAMAS, IAPSO and IACS, 19-29 July 2009, Montreal, Canada.

Frederiksen, J.S., C.S. Frederiksen and S.L. Osbrough, 2009: *Decadal Shifts in Weather Systems Affecting Southern Australia*. GWEX 2009: 6th International Scientific Conference on the Global Energy and Water Cycle, 24-28 August 2009, Melbourne, Australia.

Frederiksen, C.S., J.S. Frederiksen, J.M. Sisson, and S.L. Osbrough, 2010: *Changes and Projections in Australian Winter Rainfall and Circulation: Anthropogenic forcing and internal variability*. 2<sup>nd</sup> International Climate Change Conference, Qld. Univ., Queensland, 8-11 July, 2010.