

Day 1 - Monday 24 June 2013

7:30am Registration / sign in FOYER Coffee, tea and water available
 9:00am Official opening SBT Lou Sanson / Tony Fleming
 9:30am Keynote SBT Tim Naish, Antarctic Research Centre (NZ)
 10:00am Keynote SBT Will Steffen, Antarctic Science Advisory Committee (AUS)
 10:30am Morning tea FOYER

10:45am Keynote
 11:15am Plenary
 11:35am Plenary
 11:55am Plenary
 12:15pm Plenary
 12:35pm Lunch

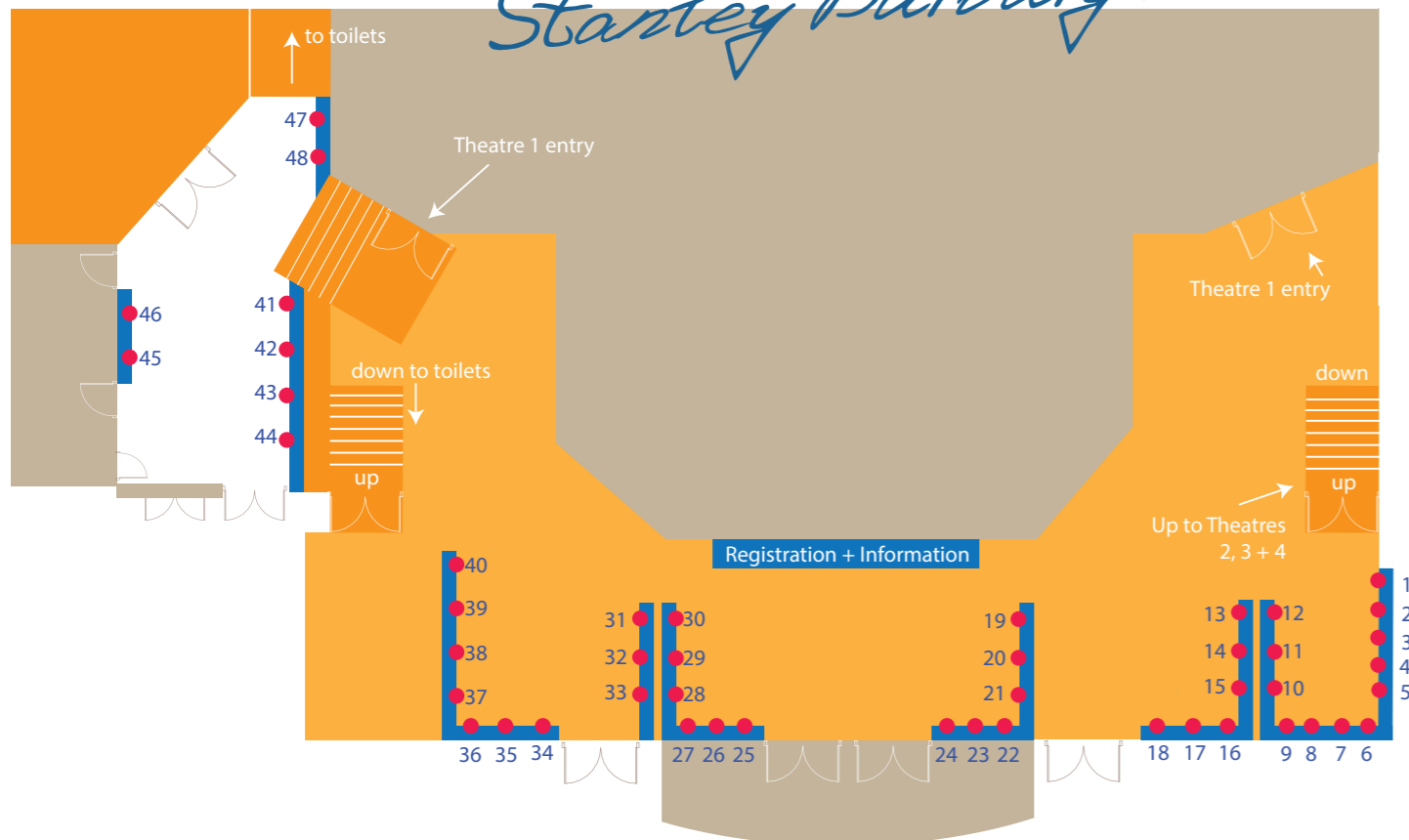
SBT Jason Mundy, Australian Antarctic Division
 SBT Climate change science for Australian Government policy - Alison McMorro
 SBT Retreat history of the East Antarctic Ice Sheet since the Last Glacial Maximum - Andrew Mackintosh
 SBT The environmental impacts of a sewage outfall at Davis Station, Antarctica - Jonathan Stark
 SBT Predictive modelling for Antarctic marine ecosystems: directions and links to policy - Jessica Melbourne-Thomas
 FOYER

	SBT 1 - OBSERVING SYSTEMS	SBT 2 - HUMAN IMPACTS IN ANTARCTICA	SBT 3 - MARINE BENTHIC SCIENCE IN ANTARCTICA	SBT 4 - ATMOSPHERIC SCIENCE IN ANTARCTICA
1:15pm Concurrent	Antarctic Environments Portal: Update on Progress - Neil Gilbert	The use of permeable reactive barriers to treat contaminated sites in Antarctica - Tom Statham	Why is East Antarctica so important? A marine biological perspective - Nerida Wilson	Who needs a stratosphere? Predicting downward influences on weather and climate - Damian Murphy
1:35pm Concurrent	Building a Southern Ocean Observing System - Louise Newman	Sensitivity of the Antarctic amphipod <i>Paramoera walkeri</i> to diesel and fuel oil: Lethal and behavioural impacts - Kathryn Brown	Success of Antarctic bivalve populations in a changing ocean: results of experiments and models - Vonda Cummings	ACCESS polar modelling - plans and opportunities for collaboration - Anthony Hirst
1:55pm Concurrent	Observing the ocean at high resolution - Helen Phillips	Preliminary analysis of the histopathological impacts of sewage discharge on resident fish, <i>Trematomus bernacchii</i> at Davis Station, East Antarctica - Patricia Corbett	Vulnerability of the fertilisation and calcifying larval stages of Antarctic sea urchins to near-future ocean acidification and warming - Melanie Ho	Antarctic and Southern-Hemisphere Climate Change: The Role of Chemistry-Climate Models - Olaf Morgenstern
2:15pm Concurrent	Using an Unmanned Aerial Vehicle (UAV) to capture micro-topography of Antarctic moss beds - Arko Lucieer	Springtail community response to petroleum hydrocarbons in subantarctic soils - Thomas Mooney	Coral proxies of environmental variability and change in SO ecosystems: current and potential applications - Ronald Thresher	Identifying vortex air using Carbon Monoxide Observations - Adrian McDonald
2:35pm Concurrent	Earth Observations from Space in Antarctic Operations and Research - John Le Marshall	Biopiles - A remediation approach for hydrocarbon-contaminated soil at Casey Station, Antarctica - Rebecca McWatters	Prediction of Deep-Sea sessile Benthic epifauna across the Kerguelen Plateau - Ty Hibberd	What the READER and the homogenized radiosonde data sets reveal about the seasonality of multi-decadal temperature trends in the Antarctic troposphere and stratosphere - Ian Simmonds
2:55pm Concurrent	Terahertz observations of star forming regions from the high plateau of Antarctica - Michael Ashley	Persistent Organic Pollutants in Antarctica: System Input from Distant and Local Contaminant Sources - Seanan Wild	Seafloor habitats and associated benthic communities in the near-shore environment of the Vestfold Hills, East Antarctica - Jodie Smith	The impact of the Southern Annular Mode on Southern Ocean physics and biogeochemistry - Peter Strutton

3:15pm POSTER SNAPSHOTS
 3:35pm Afternoon Tea FOYER Poster presenters available

4:00pm Plenary SBT Geo-heritage in the Australian Antarctic Territory - Chris Carson
 4:20pm Plenary SBT Seabird response to environmental variation and change: identifying drivers of key ecological processes - Louise Emmerson
 4:40pm Plenary SBT Perspectives and processes for warming and ice melt on the Antarctic Peninsula - Nerilie Abram
 5:00pm Plenary SBT ANDRILL Coulman High Project: Resolving Antarctic Ice Sheet behaviour during periods of climate forcing by higher than present CO₂ - Richard Levy
 5:20pm Muster Carpark Delegates transported to Government House
 6:00pm Welcome Reception Government House
 7:00pm Muster Government House Return to UTAS

Stanley Burbury Theatre



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Australian Government
 Department of Sustainability, Environment,
 Water, Population and Communities
 Australian Antarctic Division



STRATEGIC SCIENCE IN ANTARCTICA

A JOINT AUSTRALIAN AND NEW ZEALAND CONFERENCE

Program

24 - 26 June 2013
 University of Tasmania, Hobart
 Workshops * 27 - 28 June 2013

Day 2 - Tuesday 25 June 2013

8:00am	Tea/coffee	FOYER	Coffee, tea and water available	10:45am	Keynote	SBT	Neil Gilbert, Antarctica New Zealand
8:30am	Keynote	SBT	Ian Allison, Antarctic Climate and Ecosystems Cooperative Research Centre (AUS)	11:15am	Plenary	SBT	Fuel spill remediation: A holistic approach to remediation and risk assessment on Macquarie Island - Greg Hince
9:00am	Presentation	SBT	Improving satellite estimates of ice mass loss from Antarctica using observations of relative sea-level change - Dominic Hodgson	11:35am	Plenary	SBT	Secrets from the past: Using Antarctic ice cores to unlock detailed information on climate variability over the last 2000 years - Mark Curran
9:20am	Presentation	SBT	Characterizing the structure of the Ross Sea food-web: what are the priorities for monitoring ecosystem change due to climate and fishing - Matthew Pinkerton	11:55am	Plenary	SBT	Climatic variability in the Ross sea region of Antarctica and its potential influences on marine ecosystems - David Bowden
9:40am	Presentation	SBT	Poster Snapshots	12:15pm	Plenary	SBT	Reducing environmental impacts at Antarctica NZ's Scott Base - Mick Abbot
10:00am	Morning Tea	FOYER	Poster presenters available	12:35pm	Lunch	FOYER	

	SBT 1 - THE ANTARCTIC ICE SHEET	SBT 2 - TERRESTRIAL ECOSYSTEMS	SBT 3 - SEA ICE	SBT 4 - WILDLIFE
1:15pm Concurrent	ICECAP - revealing the hidden landscape of East Antarctica - Roland Warner	A soil map of Wright Valley, Antarctica - Malcolm McLeod	Sea Ice Physics and Ecosystems Experiment 2 - An update - Klaus Meiners	Ecological responses of top predators to climate variability in Eastern Antarctica - Mark Hindell
1:35pm Concurrent	On the benefit of airborne snow radar and altimetry data for the assessment of ice sheet change: A case study over Law Dome and the Totten Glacier - Christopher Watson	Monitoring change in coastal Antarctic plant communities - Diana King	First deployments of under-ice floats through winter on the Antarctic continental shelf - Esmee Van Wijk	Trophic Ecology of Antarctic Megafauna: Insights from Nutritional Physiology - Regina Eisert
1:55pm Concurrent	Ice surface elevation change on the George V Coast of East Antarctica: a new hybrid high resolution record - Duncan Young	Diversity and distribution of soil meiofauna from Antarctica - Alejandro Velasco-Castrillón	Sea ice freeboard in McMurdo Sound 2003-2009 derived by ICESat - Daniel Price	Fur seals in the Frontal Zone: Novel Environmental Performance Indicators from the Southern Ocean - Simon Goldsworthy
2:15pm Concurrent	Constraints on ice volume changes of the East and West Antarctic Ice Sheets based on cosmogenic exposure ages from the Darwin-Hatherton outlet glaciers of the Transantarctic Mountains - Bryan Storey	Glacier Cryoconites: Environmental oddities or important refugia for biota? - Ian Hawes	Modelling wave-ice interactions in the marginal ice zone - Luke Bennetts	Macquarie Islands Giant Petrels and the impacts of the Pest Eradication Program - Rachael Alderman
2:35pm Concurrent	Basal conditions of two Transantarctic Mountain outlet glaciers from observation-constrained diagnostic modeling - Nicholas Golledge	Phosphorous geochemistry in coastal meltwater ponds at Bratina Island, Antarctica - Hana Christenson	Change and variability in the seasonality of East Antarctic sea ice, 1979/80-2009/10 - Philip Reid	Prey field use by top predators in the Southern Ocean: understanding foraging dynamics of macaroni penguins near Heard Island - Merel Bedford
2:55pm Concurrent	A comparison of anisotropic ice flow relations for use in ice sheet modelling - Adam Treverrow	The responses of Antarctic terrestrial species to past climate change, and the importance of geothermal refugia - Ceridwen Fraser	What can we learn about the 'health' of an ice shelf from sea ice records? - Pat Langhorne	A co-ordinated, large-scale study of wintering ecology in a key, Southern Ocean predator - Mary-Anne Lea

3:15pm POSTER SNAPSHOTS

3:35pm Afternoon Tea FOYER Poster presenters available

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4:00pm Keynote SBT Steven Chown, [Monash University \(AUS\)](#)
 4:30pm Plenary SBT Conservation and invasive species on Australia's sub-Antarctic islands - Justine Shaw
 4:50pm Plenary SBT Geoscience data for informed marine management of the East Antarctic margin - Alix Post

5:10pm Plenary SBT Spatial and Temporal Heterogeneity in Terrestrial Antarctic Microbial Communities: a baseline survey - Craig Cary
 5:30pm Plenary SBT Antarctic ecotoxicology, risk assessment and remediation: an Australian perspective - Catherine King
 5:50pm Wrap up & Close SBT Lou Sanson

Day 3 - Wednesday 26 June 2013

8:00am	Tea/coffee	FOYER	Coffee, tea and water available	10:00am	Morning Tea	FOYER	Poster presenters available
8:30am	Keynote	SBT	Lyndal Byford, Australian Science Media Centre	10:45am	Keynote	SBT	Gary Wilson, New Zealand Antarctic Research Institute
9:00am	Presentation	SBT	Polar Outreach and Communication: what is the future of this IPY legacy? - Rhian Salmon	11:15am	Plenary	SBT	Management implications of a new bioregionalisation approach for terrestrial Antarctica: Antarctic Conservation Biogeographic Regions and beyond - Aleks Terauds
9:20am	Presentation	SBT	Assessing changes in the terrestrial environment: a soil climate monitoring network - Megan Balks	11:35am	Plenary	SBT	Observations of outflowing dense waters from the Mertz Polynya Region - Mike Williams
9:40am	Presentation		Past, present, future: quantifying present-day Antarctic ice mass changes relies on new ice history constraints - Matt King	11:55am	Plenary	SBT	Assessing and monitoring the status and trends of Antarctic seabirds in East Antarctica - Colin Southwell
				12:15pm	Plenary	SBT	The SCAR Southern Ocean CPR Survey: Changes in Southern Ocean Zooplankton - Graham Hosie
				12:35pm	Lunch	FOYER	

	SBT 1 - TERRESTRIAL ECOSYSTEMS	SBT 2 - MARINE ECOSYSTEMS	SBT 3 - ICE AND OCEAN INTERACTIONS	SBT 4 - ICE SHEET AND THE PALEOCLIMATE
1:15pm Concurrent	Monitoring invasion trends in the Antarctic - Melodie McGeoch	Long term changes in phytoplankton populations between Tasmania and Antarctica observed via pigment analysis, microscopy and satellite - Simon Wright	Change in Antarctic Bottom Water on time-scales from years to centuries: causes, consequences and implications for future observations - Stephen Rintoul	Natural and anthropogenic changes in atmospheric greenhouse gases over the past 2 millennia - David Etheridge
1:35pm Concurrent	Investigation of Antarctic moss beds using high spatial resolution imaging spectroscopy - Zbyněk Malenovský	Top down or bottom up? How about an end-to-end approach to Southern Ocean ecosystem research and management? - Stuart Corney	Ice Shelf Water to the South of the Drygalski Ice Tongue - Craig Stevens	Roosevelt Island Climate Evolution (RICE), West Antarctica: Report on Field Results and Challenges, Solutions and Successes - Alex Pyne
1:55pm Concurrent	Establishing a long term network for monitoring vegetation change in Antarctica - Lars Brabyn	Ice acidification: Response of sea ice brine algae to changes in CO ₂ concentration - Andrew McMinn	Totten Glacier, East Antarctica: How has ocean access to the ice shelf cavity shaped local elevation change patterns? - Jamin Greenbaum	Modeling the isotopic composition of snow for synoptic storm events at Roosevelt Island, Antarctica - Lana Cohen
2:15pm Concurrent	Environmental influences on microbial mat biogeography in perennially ice-covered Lake Fryxell, Antarctica - Alex Forrest	Mapping phytoplankton iron utilization provides insights into Southern Ocean supply mechanisms - Phillip Boyd	Modeling inter-annual dense shelf water export in the region of the Mertz Glacier (1992-2007) - Eva Cougnon	Monthly ice core dating using Numerical Weather Prediction (NWP) data - Mana Inoue
2:35pm Concurrent	Fertility controls richness but pH controls composition in Arctic and Antarctic fungal and bacterial communities - Tristram Winsley	Phytoplankton dynamics underpin different ecosystem structures in the Southern Ocean: Alternative community states under identical environmental conditions - Craig Johnson	Marine ice formation at the Southern McMurdo Ice Shelf - Inka Koch	Horizontal Ice Coring': Lessons from the Ice Age for Future Greenhouse Warming - Hinrich Schaefer
2:55pm Concurrent	Assessing, predicting, and managing physical impacts of human activities on Antarctic ice-free environments - Megan Balks	Spatial and temporal comparisons of sea ice algal communities in the Ross Sea, Antarctica - Ken Ryan	Grounding Zone Ice Thickness from Satellite: Inverse Modelling of Tidal Elastic Bending - Oliver Marsh	Hot rocks in a cool place - sub-glacial heat flow in east Antarctica - Chris Carson

3:15pm Afternoon Tea FOYER

3:40pm Presentation SBT Antarctica New Zealand Programme Information; Includes outcomes from NZARI 13/14 Application round and future directions
 4:50pm Presentation SBT Australian Antarctic Division Program Information; Includes MyScience, Planning, Logistics and Operations, AASP application round 2014/15
 6:00pm Function FOYER Closing drinks 'til 7:00pm