



Past Antarctic Ice Sheet Dynamics (PAIS) Conference
Trieste, Italy, 10th-15th September 2017

BIOGRAPHYS FOR INVITED SPEAKERS



Peter Barrett was Founding Director (1972-2007) of the Antarctic Research Centre, Victoria University of Wellington, New Zealand, where he continues as Emeritus Professor of Geology. His early geological studies took him from Auckland University to Ohio State University, where he studied the Late Paleozoic Gondwana strata in the Transantarctic Mountains (1964-69). In 1972 he joined the first drilling expedition to the Antarctic margin, establishing the antiquity of its ice sheet. Since then. From 1974 to 1999 he led a series of offshore drilling projects for a history of Antarctic climate and ice sheet behaviour since its inception around 34 million years ago. As a result he became interested in the perspective that climate change on geological time scales offers on future climate change, producing a film “Thin Ice – the Inside Story of Climate Science” (2013), to bring this to public attention.



Mike Bentley is a glacial geologist interested in the history of the Antarctic Ice Sheet. Over the last 20 years he has used a range of techniques to answer questions of past ice sheet and ice shelf change, much of it in the Antarctic Peninsula and Weddell Sea regions. Much of Mike’s work focuses on the use of geomorphology and analysis of cosmogenic isotopes to reconstruct onshore fluctuations of the ice sheet. He has worked with modellers to ensure that geological observations are used to constrain and test models of ice sheet change, and to improve models of glacial-isostatic adjustment; a process that needs to be understood in order to interpret some measurements of present-day ice sheet mass balance.



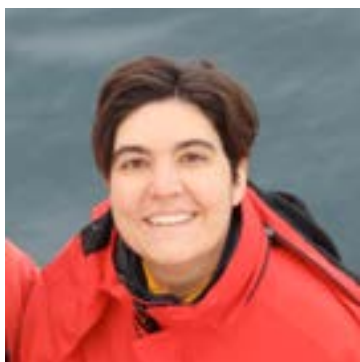
Julie Brigham-Grette is a Professor in the Department of Geosciences, University of Massachusetts Amherst, elected department head in 2013. Her research expertise is in Arctic marine and terrestrial paleoclimate records of the late Cenozoic, the evolution of Arctic climate especially in the Bering Strait region, serving as the US Co-Chief scientist of the Lake El'gygytyn drilling program in northeastern Russia. She served two terms as chair of the International Geosphere-Biosphere Program's Science Steering Committee on Past Global Change (PAGES), 2004–2008; president of the American Quaternary Association, 2004–2006; Chair of AGU Paleooceanography and Paleoclimatology Focus Group, 2010 to 2012. She is a Fellow of the Geological Society of America and the AGU. She was a member of the NRC Committee on Role and Future Use of the U.S. Icebreaker Fleet; and is now in her second term as chair of the US NAS Polar Research Board; serving as a member since 2008.



Steven L. Chown holds a Professorship in Biological Sciences at Monash University, Australia. He was Head of Biological Sciences at Monash for five years (2012-2017), during which time he reshaped the School with 16 new academic appointments and ca. AU\$50 M of new investment. Prior to that he established and was inaugural Director of the influential South African National Centre of Excellence for Invasion Biology (2004-2012). A key part of his research concerns the biological impacts of the major global change drivers. Current projects include conservation biology, evolution and ecology across the Antarctic region; macrophysiology and community ecology of soil systems in Australia; and revitalising informal settlements and their environments in Indonesia and Fiji – a large interdisciplinary project funded by the Wellcome Trust and Asian Development Bank.

Steven has published widely and the outcomes of his work have had substantial impacts on conservation and science policy. Much of this has been delivered through interactions with the Antarctic Treaty System. For many years he has represented the Scientific Committee on Antarctic Research at the Antarctic Treaty Consultative Meetings, providing advice on a broad range of environmental and research matters. Currently he is President of SCAR. As a consequence of his science and policy contributions in the Antarctic region, Steven is the inaugural recipient of the Tinker-Muse Prize for science and policy in Antarctica. He has also received the SCAR Medal for Excellence in Antarctic Research, the South African Antarctic Gold Medal, and the Gold Medal of the Zoological Society of Southern Africa.

Steven lives in Melbourne with his partner, two border collies and six bicycles.



Florence Colleoni received a joint Ph.D in paleoclimate modelling from LGGE (CNRS, Grenoble, France) and Stockholm University in 2009. Her research focused on the modeling of past Northern Hemisphere glaciations, and in particular MIS6, a topic that she investigated until recently. She is currently

junior scientist at the Euro-Mediterranean Center on Climate Changes Foundation in Bologna (Italy).

Her current research interests migrated towards the Southern Hemisphere when she recently started to collaborate with the Italian polar community,

and in particular with the OGS institute in Trieste. She is currently investigating different aspects of the Antarctic ice sheet, from ocean and atmosphere to ice-sheet dynamics and from deep past to future, with a particular focus on the integration of the different timescales at which processes occur. One her main objective is to develop the paleo and future ice-sheet modeling research in Italy with the support of the major national structures dealing with polar sciences in Italy.



Peter Convey is a terrestrial ecologist with over 28 years experience of working in a wide range of polar environments. He has broad and diverse research interests, including:

Biodiversity and biogeography of polar terrestrial invertebrates, plants and microbes

Life history and ecophysiological strategies of polar terrestrial biota

Polar ecosystems as models to identify the past and future global consequences of climate change

Palaeobiogeographical reconstruction of Antarctica

Human impacts, conservation and management in Antarctica

He is an 'Individual Merit' (IMP) senior research scientist at BAS, where he is deputy leader of the core 'Biodiversity, Evolution and Adaptation' Team.

He was Co-Chair of the SCAR Science Research Programme 'Evolution and Biodiversity in Antarctica' (2006-2013), and is now Deputy Co-Chair of the programme 'State of the Antarctic Ecosystem'.



Rob DeConto is a Professor of Geosciences at the University of Massachusetts. Rob's background spans geology, oceanography, atmospheric science, and glaciology, and he has held research positions at the US National Center for Atmospheric Research (NCAR) and the National Oceanic and Atmospheric Administration (NOAA). Rob's research is focused on understanding the long-term evolution of the cryosphere, particularly the polar ice sheets on Greenland and Antarctica, and the future fate of those ice sheets in a warming world. This has included field work on Antarctica and the application of climate, ocean, and ice sheet models to a wide range of past and future climate scenarios. Rob serves on a number of national and international science boards and advisory panels, he is the 2016 recipient of the Tinker-Muse Prize for Science and Policy in Antarctica, and he is currently serving the Intergovernmental Panel on Climate Change (IPCC).



Dr. Andrea Dutton is an Assistant Professor at the University of Florida in the Department of Geological Sciences. Her main research focus is to reconstruct past sea level changes during past warm periods and rapid climate transitions to understand the dynamics between climate and sea level change. Dr. Dutton's primary expertise is in U-Th dating of carbonate archives such as fossil corals and speleothems, which can be used to reconstruct the past position of sea level. Her work is noted for her interdisciplinary integration of field geology, isotope geochemistry, carbonate sedimentology, and geophysical modeling (glacial isostatic adjustment and dynamic topography) to provide a rich context for the interpretation of past sea levels. Dr. Dutton is also very active in communicating her research to public audiences, and is regularly featured and quoted in media such as The New York Times, Scientific American, The Washington Post, The Guardian, The Atlantic, and The New York Times Magazine.



Jane Francis is Director of the British Antarctic Survey, based in Cambridge. A geologist by training from the University of Southampton, she was a NERC Postdoctoral Fellow in London, palaeobotanist at the British Antarctic Survey, Australian Research Fellow at the University of Adelaide, a Royal Society Leverhulme Trust Senior Research Fellow and Professor of Palaeoclimatology at the University of Leeds, where she was also Dean of the Faculty of Environment. Her research interests include ancient climates and fossil plants from the Arctic and Antarctica, used to decipher ancient polar climates of the past. She was awarded the Polar Medal for her contribution to British polar research.



Chuck Kennicutt, Professor Emeritus received a Bachelor of Science degree in Chemistry from Union College, Schenectady, NY (1974) and a Ph. D. in Oceanography from Texas A&M University, College Station, TX (1980). He was a founding member, worked for 23 years as research scientist and rose to director of the Geochemical and Environmental Research Group from 1998-2004. Dr. Kennicutt was the Director of Sustainable Development (2004-2009) and led the Sustainable Coastal Margins Program (SCMP) from 2000-2010. He returned to the Oceanography Department and the Environmental Programs in 2009 where he taught oceanography, polar science, and science and policy retiring in 2013. He was a member of the U.S. Department of State delegation to the Antarctic Treaty from 2002-2007. Dr. Kennicutt was the US Delegate to the Scientific Committee on Antarctic Research (SCAR) from 2003-2012 and ex officio member of the U.S. Polar Research Board from 1998-2014. He served as a Vice President (2004-2008) and President of SCAR (2008-2012). He was the principal investigator of the long-term environmental monitoring program in McMurdo Sound in Antarctica from 2002-2014 and has been to Antarctica eight times. He is professor emeritus of Oceanography at Texas A&M University and led the 1st SCAR Antarctic and Southern Ocean Science Horizon Scan in 2014. Professor Kennicutt was named a National Associate of the U.S. National Academy of Sciences for life, awarded the Antarctic Service Medal of the U.S. Antarctic Program and a geographic feature was officially named Kennicutt Point in 2006.



Yeadong Kim is Principal Researcher at the Korea Polar Research Institute (KOPRI), Incheon, Republic of Korea. Yeadong has a background in Geology and Geophysics with a PhD obtained at Louisiana State University in 1987. His interest is in multichannel seismic, tectonics and more recently Palaeoclimate. Yeadong is currently Chair of the Korea National Committee on Polar Research (KONPOR) and has been chair of the Asian Forum for Polar Sciences (AFoPS) until 2016. He is member of the International Science Panel, New Zealand Antarctic Research Institute. Yeadong has been President, Korea Polar Research Institute (KOPRI) from 2013 to 2016 and from 2002 to 07. He served as Vice President Scientific Committee on Antarctic Research (SCAR) from 2010 to 2014. He was invited Professor at the Japanese National Institute of Polar Research, President of the Korea Geophysical Society, member of the Executive Committee, Council of Managers of National Antarctic Programs. Yeadong was Officer-in-Charge, King Sejong Station, Antarctica in 1989 and in 1996.



Richard Levy is a Senior Scientist at GNS Science where he leads two major environmental research programmes. His research primarily focuses on the evolution of Earth's climate system in the mid to high southern latitudes over the past 40 million years. He has spent much of his career studying ancient sediments and fossilised life forms to reconstruct environmental conditions that characterised Antarctica during times of warmth in our planet's past. Richard has extensive experience in scientific drilling and has led major projects in Antarctica and New Zealand. Dr Levy's current interests include sea level rise impacts on New Zealand's coastal systems - the downstream consequences of change in Antarctica.



Valérie Masson-Delmotte is a senior scientist from Laboratoire des Sciences du Climat et de l'Environnement, Institut Pierre Simon Laplace. She is the Co-chair of IPCC Working Group I for the AR6 cycle. Her research interests are focused on quantifying and understanding past changes in climate and atmospheric water cycle, using analyses from ice cores in Greenland, Antarctica and Tibet, analyses from tree-rings as well as present-day monitoring, and climate modelling for the past and the future. She has worked on issues such as the North Atlantic Oscillation, drought, climate response to volcanic eruptions, polar amplification, climate feedbacks, abrupt climate change and ice sheet vulnerability across different timescales. She is active in outreach for children and for the general public and has contributed to several books on climate change issues (e.g. Greenland, climate, ecology and society, CNRS editions, 2016; in French). Her research was recognized by several prizes (European Union Descartes Prize for the EPICA project, 2008; Women scientist Irène Joliot Curie Prize, 2013; Tinker-Muse Prize for science and policy in Antarctica, 2015; Highly Cited Researcher since 2014).



Tim Naish is a Professor in Earth Sciences and has been Director of the Antarctic Research Centre at Victoria University of Wellington since 2008. His research focuses on past, present and future climate change with specific emphasis on how the Antarctic ice sheets respond to climate change and their influence on global sea-level. He has participated in 14 expeditions to Antarctica and helped found ANDRILL, a USD \$30M international Antarctic Geological Drilling Program. Tim, his colleagues and his team at the Antarctic Research Centre are committed to communication of Antarctic and climate change science and its relevance to policy and society. He is co-chief officer of the SCAR Past Antarctic Ice Sheet strategic research programme, and was recently appointed to the Australian Government's National Advisory Committee on Climate Science. He was Lead Author on the Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report. He has received the New Zealand Antarctic Medal, the Martha Muse Prize for Antarctic Science and Policy and is a Fellow of the Royal Society of New Zealand



Louise Sime is Group Leader in Paleoclimate. Her research is concerned with the use of techniques to better understand changes in the ice sheets, sea ice, and climate in polar regions over the last 800 000 years. Much of her effort goes into understanding ice core observations by using water isotopes in climate models. Stable water isotopes (deuterium and oxygen-18) in ice record represent a key long-term proxy record of climate. Using water isotope enabled simulations can help us understand how ice sheets, sea ice, and climate behaved in the past.

One of the key questions which has motivated Louise's recent work is: How can we best use ice and marine core evidence from the Last Interglacial, 130 000 to 116 000 years ago, to help better predict likely polar change over the coming century? Last Interglacial global mean temperatures were similar to that predicted to occur over the coming 50 years; but polar regions were substantially warmer than they are today. Reconstructing and modeling polar ice sheets and sea ice changes during the Last Interglacial provides a useful means to evaluate future predictions of critical changes in both polar climate - and in global sea level.



Paolo Stocchi is a Tenure Track researcher at the Department of Coastal Systems of the NIOZ Royal Netherlands Institute for Sea Research in Texel (NL). Paolo's background spans geophysics, geology, glaciology, oceanography, climatology. He graduated at the Faculty of Environmental Sciences of the University of Urbino "Carlo Bo" (Italy) in 2003. Paolo obtained his Ph.D in Geophysics at the University of Bologna (Italy) in 2007 and since then he has held research positions at TU Delft (NL), Utrecht University (NL) and NIOZ (NL).

Paolo's research focuses on the reconstruction of past sea-level fluctuations by integrating numerical models for ice sheets and glacial isostatic adjustment with geological and archaeological field data. Paolo is currently involved in several national and international projects and cooperations that aim at investigating the connections between cryosphere, solid Earth, oceans and bio-ecology by means of dynamical couplings.



Jan Maree Strugnell is Associate Professor at James Cook University, Australia. Her current research is in applying next generation sequencing tools to help solve bottlenecks in fisheries and aquaculture industries and in investigating population and species level evolution in molluscs and Antarctic and deep-sea species.

She has been lecturer and Associate Professor at La Trobe University, Australia, for teaching Ecological and Evolutionary Genetics. She obtained Australian Research Council, Australian Biological Resources Study and Australia Pacific Scientific Foundation, Fisheries Research and Development Corporation grants. She was Lloyd's Tercentenary fellow, at University of Cambridge, UK with a project for evolutionary history of the Antarctic marine fauna: climatic and tectonic constraints investigating the effect of past major climatic and tectonic events on shaping our biodiversity, developed a panel of microsatellite loci for 3 Antarctic octopus species, and she has been awarded for the best scientific paper on cephalopod research. Her Post doctoral research fellow, at British Antarctic Survey, Cambridge/Queen's University, UK, was: Did Antarctic octopuses colonise the deep sea? She reported the first dated molecular evidence that deep-sea fauna from other ocean basins originated from Southern Ocean taxa.

Jan Maree conducted two successful Antarctic field trips to collect octopus



Anna Wåhlin is a Professor of Physical Oceanography at the Department of Marine Sciences, University of Gothenburg. Her research focus is in the field of Polar Oceanography, mostly in the Southern Ocean. Specifically her research investigates several aspects of dynamics of polar seas including physical oceanography, ocean circulation, topographic effects, ice shelf melt processes and air-sea-ice interaction. When Wåhlin was appointed professor in 2015 she became Sweden's first woman full Professor of Oceanography. Wåhlin is co-chair of the joint Scientific Committee on Antarctic Research (SCAR) and SCOR initiative Southern Ocean Observing System (SOOS). She is an Associate Editor of the journal, *Advances in Polar Science* and was a member of IOW scientific advisory board (2016-2019). Wåhlin's awards include being a Fulbright Scholar (2007-2008), receiving a Crafoord Research Stipend from the Swedish Royal Academy of Science (2010) and being a SCAR visiting professor (2013).