

Economics Legislation Committee
ANSWERS TO QUESTIONS ON NOTICE
Industry, Innovation, Science, Research and Tertiary Education Portfolio
Budget Estimates Hearing 2012-13
28 and 29 May 2012

AGENCY/DEPARTMENT: AUSTRALIAN RESEARCH COUNCIL

TOPIC: Climate Change Research Grants

REFERENCE: Written Question - Senator Bernardi

QUESTION No.: BI-112

Since 2009, what Australian Research Council research grants have gone to scientists and researchers associated with work related to climate change?

For each of these grants:

- a) who was the recipient,
- b) what was the amount, and
- c) what was the short title of the research?

ANSWER

For ARC-funded research projects related to climate change which have received funding since 2009 refer to Parliamentary Question on Notice 1507 for 2005 to May 2009 and Senate Estimates Question on Notice BI-21 for June 2009 to May 2011

The following table provides information on research projects relevant to climate change funded since May 2011.

Start year	Scheme (1)	(a) Administering Organisation (2)	Investigators (3)	(b) Amount (GST Exclusive) (4)	(c) Project Title (5)
2012	DECRA	Macquarie University	Dr Melanie Jane Zeppel	\$375,000	Shifting rainfall from spring to autumn: tree growth and water use under climate change
2012	DECRA	Australian National University	Dr Lisa Ellen Schwanz	\$375,000	The battle of the sexes heats up: climate change and the ecological and evolutionary fate of reptiles when sex is determined by temperature
2012	DECRA	University of Queensland	Dr Gilbert James Price	\$375,000	Understanding faunal responses to climate change and environmental perturbations through the Quaternary in north-eastern Australia
2012	DECRA	Australian National University	Dr Jennie Mallela	\$375,000	Coral reefs, climate change and land-based pollution: past, present and future impacts on coral reef development
2012	DECRA	Griffith University	Dr Wendy Elizabeth Steele	\$375,000	Securing the Australian city: the governance of critical infrastructure in climate change

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2011	DI	Australian National University	Dr Michael-Shawn Fletcher; Dr Simon G Haberle	\$199,742	Tracking the response of the Australian climate to abrupt climate change
2011	DP	University of Melbourne	A/Prof Maureen F Tehan; Prof Lee C Godden; Dr Margaret A Young; Dr Kirsty A Gover	\$305,000	Climate change law and mitigation: forest carbon sequestration and Indigenous and local community rights
2011	DP	Queensland University of Technology	Prof Shilu Tong; Prof Patricia E Dale; Prof John S Mackenzie; Prof Kerrie L Mengersen	\$310,960	From science to policy: quantifying and managing the risk of mosquito borne disease in the context of climate change
2011	DP	James Cook University	Dr Andrew H Baird; Dr Joana C Figueiredo	\$225,000	Climate change, larval dispersal and patterns of connectivity in coral metapopulations
2011	DP	University of Melbourne	Prof Ian H Simmonds; Prof Dr Heini Wernli	\$350,000	Cyclones, storm tracks and precipitation over the globe, and their sensitivity to climate change
2011	DP	University of Wollongong	Prof Sharon A Robinson; A/Prof Paul A Keller; Dr Arko Lucieer; Dr Dominic A Hodgson; A/Prof Wolfgang Wanek; Dr Quan Hua; Prof Howard Griffiths	\$690,000	Mapping Antarctic climate change in space and time using mosses as biological proxies
2011	DP	Australian National University	Dr Naomi E Langmore; Dr Robert Heinsohn; Dr Rebecca M Kilner; Dr Robert C Lacy	\$440,000	Cuckoo - host coevolution: a model system for investigating the impact of climate change on interspecific interactions and biodiversity
2011	DP	Australian National University	Dr Frank H Jotzo	\$140,000	International coalitions for climate change mitigation: the role of carbon market linkages and trade restrictions
2011	DP	University of New South Wales	Prof Andrew J Pitman; Dr Gabriel Abramowitz; Dr Ray Leuning	\$300,000	Are proposed land-based sinks for greenhouse gases resilient to climate change and natural variability?
2011	DP	Australian National University	Dr Thomas H Ford	\$258,846	Nineteenth-Century climate change: atmosphere, culture and romanticism
2011	DP	University of Wollongong	Prof David W Griffith; Prof Paul O Wennberg; Dr Sara E Mikaloff Fletcher	\$455,000	Atmospheric composition and climate change: a southern hemisphere perspective
2011	DP	University of Melbourne	Dr Brendan A Wintle; Dr Atte Moilanen	\$548,270	From prediction to action: Responding to rapid ecosystem shifts under climate change
2011	DP	University of Sydney	Prof Christopher A Wright; Prof David S Grant; Dr Bernt D Nyberg; Prof Richard W Dunford	\$190,000	Sustainable organisational change: Australian business responses to climate change

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2011	DP	James Cook University	Dr Justin A Welbergen; Prof Stephen E Williams; Dr Luke P Shoo; Dr Jeremy J VanDerWal	\$380,000	Global climate change and the impacts of temperature extremes on terrestrial biodiversity
2011	DP	University of Sydney	Prof Maria Byrne; Dr Symon A Dworjanyn	\$378,000	Impact of climate change stressors on calcifying and non-calcifying marine life stages: predicting tipping points for persistence in a changing ocean.
2011	DP	University of New South Wales	Prof Marc A Williams; Dr Duncan A McDuie-Ra	\$189,000	Climate change and environmental security in the Pacific: the role of regional organisations
2011	DP	Australian National University	Prof Andrew P Roberts; Prof Patrick De Deckker; Dr Marc D Norman; Dr Paul Hesse	\$540,000	Australian dust: its response to, and role in, climate change
2011	DP	University of Technology, Sydney	Prof Alfredo R Huete	\$210,000	Integrating remote sensing, landscape flux measurements, and phenology to understand the impacts of climate change on Australian landscapes
2011	DP	University of Adelaide	Prof Graeme J Hugo; Dr Yan Tan; Prof Guishan S Yang; Prof Naiang A Wang	\$710,000	Climate change and migration in China: theoretical, empirical and policy dimensions
2011	DP	The University of Adelaide	Prof Alan Cooper; Asst Prof Eric G DeChaine; Dr Grant D Zazula; Prof Dr Joseph A Cook; Asst Prof Charles C Davis	\$182,000	Comparative Paleogenomics of the Arctic Tundra Ecosystem: the genetic response of plants and animals to climate change
2012	DP	University of Queensland	Dr Kelly Fielding; Prof Matthew John Hornsey	\$197,302	Sending and responding to messages about climate change: the role of emotion and morality
2012	DP	The University of Sydney	Prof Jean Clobert; A/Prof Frank Seebacher; Dr Robbie Stuart Wilson	\$370,000	Does physiological plasticity of individuals render populations resilient to climate change?
2012	DP	Australian National University	A/Prof Patricia Ruth Backwell	\$340,000	Fiddling while home burns: climate change and fiddler crabs
2012	DP	Macquarie University	Prof Dr Hans O ortner; Dr Wayne Andrew O'Connor; Dr Laura Maree Parker; A/Prof Pauline Mary Ross; A/Prof Paul Andrew Haynes; A/Prof David Andrew Raftos	\$285,000	Adapting to climate change: does enhanced metabolism provide heritable protection against ocean acidification and increasing temperature in oysters?
2012	DP	University of Queensland	Prof David Frank Burch; Prof Geoffrey Alan Lawrence	\$100,000	Governing food security in Australia in an era of climate change: a sociological analysis

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2012	DP	University of Adelaide	A/Prof Peng Bi; Prof Guy Martin Robinson; Dr Arthur Saniotis; Prof Jonathan William Newbury; A/Prof Dino Luigi Pisaniello	\$122,000	Assisting rural communities in South Australia adapt to the health challenges of increasing temperatures and climate change
2012	DP	Monash University	Prof Brendan George Mackey; Prof William James Sutherland; Dr Anne-Marie Peters	\$314,000	Getting smaller as temperatures rise? Body size responses of Australian birds to climate change
2012	DP	Australian National University	Prof Karen L Nero; Dr Christian Helmuth Reepmeyer; A/Prof Geoffrey Richard Clark; Dr Simon Graeme Haberle; A/Prof Julian P Sachs	\$335,000	Climate change in the abandonment of islands: a high-resolution case study from the tropical Pacific
2010	FL	University of Melbourne	Prof Ary A Hoffmann	\$1,523,582	New approaches for pest control and maintaining healthy environments under climate change
2010	FL	University of New South Wales	Prof Chris S Turney	\$2,981,452	Tipping points in Records of Extreme Events in Australasia: Using the Past to Understand and Plan for Abrupt Future Climate Change
2011	FL	Australian National University	Prof Craig Charles Moritz	\$2,939,883	New approaches to discovering biodiversity and understanding its response to past climate change
2010	FT	University of Sydney	Prof Alison C Bashford	\$844,133	Climate change and the history of environmental determinism
2010	FT	University of Queensland	A/Prof Clive A McAlpine	\$813,192	Modelling the potential of large-scale revegetation to reduce the impacts of climate change in semi-arid Australia
2010	FT	Australian National University	Dr Matthew R Rimmer	\$655,687	Intellectual property and climate change: inventing clean technologies
2010	FT	University of New South Wales	Dr Katrin J Meissner	\$680,542	What caused abrupt climate change events in the past and what can they tell us about the future?
2010	FT	University of Melbourne	Dr Brendan A Wintle	\$594,335	From prediction to adaptation: responding to rapid ecosystem shifts under climate change
2011	FT	University of New South Wales	Dr Jason Peter Evans	\$581,897	How will climate change affect sub-daily precipitation?
2011	FT	University of Tasmania	Dr Erik Wapstra	\$745,096	Climate change: bridging the gap between environmental induced phenotypic change, population dynamics, and long-term evolution
2011	FT	Monash University	A/Prof Jason Beringer	\$782,168	Vulnerability of Australian savannas to climate change and variability
2011	FT	University of New South Wales	Prof Jane McAdam	\$814,913	Moving with dignity: a human rights approach to slow-onset climate change-related displacement and relocation in the Pacific

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2011	FT	Australian National University	Dr Simon John Niemeyer	\$629,090	Deliberative democracy and climate change: building the foundations of an adaptive system
2010	LP	University of New South Wales	Dr Daniel Ramp; Dr David I Warton; Dr Kim M Jenkins; Dr Michael B Ashcroft; Dr John R Gollan; Dr Patrick Driver	\$320,000	Innovative approaches to identifying regional responses of biodiversity to climate change
2010	LP	Murdoch University	Prof John G Howieson; Dr Kemanthi G Nandasena; A/Prof Graham W O'Hara; Prof Dr Ann M Hirsch	\$150,000	The Betaproteobacteria: could they play a key role in nitrogen fixation on infertile soils with legumes adapted to climate change?
2011	LP	University of Wollongong	Dr Mark Ooi; Prof David J Ayre; Dr David A Keith; Dr Tony D Auld; Prof Rob P Freckleton	\$380,000	Predicting climate change impacts on biodiversity: testing and applying new approaches
2011	LP	Griffith University	Prof David M Lambert; Dr Barbara R Holland; Dr Craig D Millar; Mr Ruiqiang Li	\$730,000	How will animals respond to climate change? A genomic approach
2011	LP	University of Adelaide	Prof Andrew J Lowe; Prof Barry W Brook; Prof Corey J Bradshaw	\$405,222	Developing best-practice approaches for restoring forest ecosystems that are resilient to climate change
2012	LP	University of Western Australia	Dr Carlos Frederico Gurgel; Dr Thomas Wernberg	\$240,000	Long-term changes in the phenology of Australia's temperate marine macroalgae: has climate change impacted the world's most diverse algal flora?

- (1) **Scheme:** DECRA (Discovery Early Career Researcher Award); DI (Discovery Indigenous Researchers Development); DP (Discovery Projects); FL (Australian Laureate Fellowships); FT (Future Fellowships); LP (Linkage Projects)
- (2) **Recipient:** ARC funding is awarded to eligible organisations, rather than individual researchers.
- (3) **Investigators:** Researchers listed as investigators on the funded proposals.
- (4) **Amount:** Total funding over the life of the project. Details of funding are as at the time research proposals were approved for funding and exclude any post-award variations that may subsequently have been approved.
- (5) **Project title:** Research projects relevant to climate change have been identified on the basis of a search for the phrase 'climate change' in the 'Project Title' text.