

TALL POPPY CAMPAIGN

Investing in Australia's Future

Young Tall Poppy Profile: Dr Ben McNeil

Name: Ben McNeil

Title: Dr

Research Field: Oceanography

More Specifically: Climate change impact on the oceans

Abbreviated Qualifications: BEng (Hons), PhD

Current position: Australian Research Council Queen Elizabeth II Fellow

University/Institution: University of New South Wales

What do you do? (in 100 easy-to-understand words or less)

Ben's research seeks to understand the ocean's role in absorbing atmospheric carbon dioxide and investigate the consequences of oceanic absorption of CO₂. As CO₂ is absorbed by the ocean, it forms a weak acid which lowers the pH of the ocean. With increasing atmospheric CO₂ levels due to greenhouse gas emissions, the more CO₂ is absorbed by the ocean. My research seeks to quantify and understand the likely implications of this 'ocean acidification' on the marine ecosystem.

Why is this research important? How is it relevant to society at large?

The Great Barrier Reef is a national icon that is likely to undergo impacts in relation to ocean acidification, yet it is unclear how important these climate change impacts will be.

What's difficult about it?

The lack of oceanic CO₂ observations, limit our understanding of the processes relating to oceanic CO₂ absorption. Computer modeling has become an ever-important tool in order to understand processes within the ocean.

Why are you passionate about it?

Climate change is the greatest long term threat to humanity and our earth. I am passionate about scientists informing and communicating our understanding of the issue to all Australians.

Why share your research with high school students?

High school students are the future and the very people who have the potential to change the world for the better – so it is particularly fulfilling part of my work.

Why study sciences?

Diagnosing, understanding and solving climate change will come from science. Science provides you with a fascinating, challenging and rewarding career with the knowledge that you can help change the world for the better.

Is it what you've always wanted to do?

Yes

What else are you into? (ie. What are your hobbies and interests when you're not researching)?

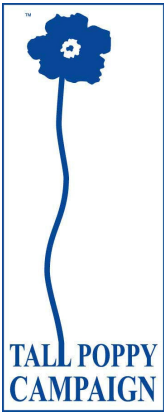
I love sport of all forms – in particular cricket, surfing and golf.

Founded by the Australian Institute of Policy and Science

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The Tall Poppy is a metaphor for excellence and endeavour and symbolises Australia's pride in its outstanding achievers – in all fields.

ABN 71 000 025 507

**Public profile:**

Ben's writing on climate change has been widely published in Australia's newspapers including the *Sydney Morning Herald*, *The Age*, *The Australian* and *The Canberra Times*. He has also made numerous radio and television appearances including *ABC Radio National*, *CNN*, *BBC* and *Sky News Australia*. In 2007, he was chosen as an expert reviewer for the United Nations Inter-Governmental Panel on Climate Change 4th assessment report and was invited to present his research to the Prime Minister and cabinet at Parliament House in Canberra.

Your achievements - How did you get where you are today?

Your HSC subjects: 4 Unit Maths, 2 U Chemistry, 2 U Physics, 2 U Geography, 2 U General English, 2 U Biology

Degrees: Bachelor of Environmental Engineering (Honours II), PhD (Oceanography)

Some of your previous position/s: Post-doctoral Research Fellow, Princeton University

Current position: Queen Elizabeth II Research Fellow at the Climate Change Research Centre, University of New South Wales

Relevant awards and prizes you have received as part of your studies/research/work:

Ben received a Shell Student Award (top 2% of engineering school) and a PhD scholarship from the CSIRO. He was awarded an Australian Research Council, Australian Linkage Postdoctoral Fellowship and two University of New South Wales, Goldstar Awards. He also was awarded a prestigious Australian Research Council Queen Elizabeth II Research Fellowship and JG Russell Award from the Australian Academy of Science.

Summary of published works: Ben has published 15 scientific publications, 8 opinion essays and one book chapter. He is currently writing a book on climate change.

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