

# Innovation

## Science & Technology

### MATHS + PASSION, GLOBAL WARMING AND GLAMOUR = SCIENCE



When you are as enthusiastic about mathematics as scientist and former Tasmanian ABC Television weather presenter Dr Jaci Brown, making the transition from school to higher education to workforce doesn't come much easier.

A specialist in climate research and oceanography, Jaci left high school in 1995 to study first at the University of New South Wales (UNSW) and then jointly with the CSIRO Marine and Atmospheric Research in Hobart.

She left Tasmania in December 2005 to continue her studies with a two-year post-doctoral appointment at the prestigious Yale University, Connecticut in the United States, alongside some of the best minds in climate research and from where she can make further contributions to science and climate education.

Hers has been a career of achievement within and outside the science world - and it all began by turning up to a high school maths seminar at a rural high school, Coomealla, just over the border in NSW.

"I really liked maths at school but I didn't know of any job you could get doing maths besides being a teacher until I went to a maths seminar. There I discovered that maths could actually be a career and people employ you to solve problems for them.

"I decided to do a science degree and major in maths and by studying computing, physics, chemistry and philosophy was able to keep my career options open," she says.



BELIEVE IN YOUR IDEAS

#### Innovation, Science & Technology

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Tasmania

What followed the science degree was an honours program at UNSW. "It was only at the end of a vacation scholarship in oceanography that I discovered the oceans are all about mathematics.

"I was blown away that you could take a few basic equations and predict what the ocean was going to do.

"That led me to the path of weather and climate science and starting a five-year PhD program in Hobart with a focus on understanding whether a changing climate is influencing the intensity of El Nino events that often bring drought to Australia.

"Many people would think that to study climate you would major in Geography - but so much of it is really maths," she says.

"Doing a PhD is like having a full-time job but without a boss - you need to be disciplined and sure about where you are going and what you want to achieve."

Climate and weather have played an important part in life outside universities and CSIRO - first as a weekend weather presenter in Sydney with the cable television Weather Channel.

Moving to Tasmania coincided with the retirement from the ABC of long-standing weather presenter and colleague at CSIRO, Dr Mike Pook.

Jaci put her hand up for the job, a role that involved daily briefings at the Bureau of Meteorology before explaining the weather on the evening bulletin. "My role was to be the link between the meteorologists and the public. I took the scientific data and determined the information that was important for the viewers".

Very much a scientist accepting a responsibility to communicate her research, Jaci began making presentations to community groups about climate and weather, before becoming the Scientist in Residence at Ogilvie High School, Hobart.

That, in turn, led to the development of a landmark education teaching module bringing the subject of global warming to the Tasmanian classroom with its adoption by the State Education Department, and potentially by all other State and Territory education departments.

Developed by Jaci and teachers at Ogilvie High School, Libby Robinson and Heather Omant, this module is part of the Education Department's Essential Learnings curriculum.

"The intention is to make students aware of changes happening in the global climate system, how those changes impact on the environment and steps they can take to help reduce emissions that contribute to the greenhouse effect," she says.

And some advice on where this all begins! "Make sure you choose your career based on what you enjoy.

"Don't base it on how much money you will earn, how prestigious the job is, or what your parents expect you to do - all these factors become irrelevant in time.

"If you want a glamorous job, forget law, forget medicine - go science!"

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