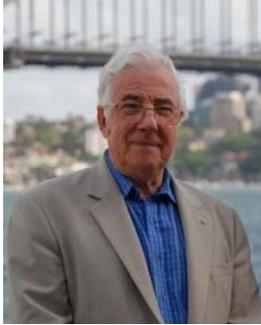


Bruce Thom, coastal scientist

Bruce Thom is an Australian scientist and educator. He is a member of the Wentworth Group of Concerned Scientists and Emeritus Professor at the University of Sydney. He has



been awarded a member of the Order of Australia for his contribution to the ecological management of the coastal zone and as a contributor to public debate.

Coastal scientist, what does this mean...

A Coastal scientist is someone with an interest in the study of coastal change.

In simple terms...

I investigate the science of landform change (geomorphology). Overtime the landform of the coastline changes. Sand, muds and sediments get moved around by the force of currents, tides, waves and rivers. I investigate how these forces cause change across the coastline and the impacts of those changes.

My interest in coastal science started when...

I was growing up as a child in Sydney and the Eastern Suburbs. I was surrounded by the sea. I was very curious about things in nature and why they behave the way they do. This raised a lot of questions I wanted answers to. I have been very fortunate to be able to travel overseas to America, Mexico, Europe, Asia and the Pacific to learn more about the coast from a global perspective.

At university I...

Firstly studied a Bachelor of Arts Degree as I wasn't sure what I wanted to do. I then moved towards my interest in geography. I achieved an honours degree at Sydney University and then was invited, on a scholarship, to Louisiana University, to the Coastal Studies Institute where they have the Mississippi Delta. I completed my PHD in Louisiana, I then worked in many other universities in the area of coastal science.

A typical day...

In my early career was essentially a journey of discovery. In places such as the Ord, the Kimberly's and the Great Barrier Reef we carried out processes such as; drilling holes, collecting samples, looking at movements of sand, changes in coastlines, reviewing literature and writing research papers. Nowadays I am an adviser to state and federal government. Through chairing advisory

committees, I apply the knowledge I have acquired to give advice to decisions being made by the government. For example, this week I have been in parliament talking to the parliamentarians about the nature of changes in policies in relation to climate change and even the impact of storms on coastlines in their electorates.

I am most proud of...

The fact that the type of research I carried out was new and the sorts of things I was discovering about our coastline were not known until now. The work I carried out has allowed others to build on what I discovered using new technology and new methods of research. I am also proud that more recently I have worked at getting government policies and laws changed to reflect our changing coastline. We have to confront a difficult future with climate change, population growth, storms, and also contend with those that want development near the coastline in the way of houses and other structures. We need to find a balance of protecting both sides.

One of the unexpected I have learnt has been...

That each individual grain of sand has a story. Given modern technology we have now we are able to determine where the sand has come from, how old it is and how long it has been exposed to the sun or buried. The whole story can be told.

Australia's coastlines are facing...

Difficulties due to climate change. Projections are leading to uncertainty for areas. Seas will become higher and oceans are becoming warmer and more acidic creating problems for marine life e.g. coral bleaching. Exploring the uncertainty by using modelling is important in understanding the effects of climate change.

Australians can...

Continue to research effects of climate change on coastlines and find ways to engineer around low lying areas. Governments have to be in the position to help communities that will be affected by coastal change. The knowledge about the science of the coast is important in allowing governments to make these decisions.

Bibliography

"Prof Bruce Thom – Wentworth Group Of Concerned Scientists". *Wentworthgroup.org*. N.p., 2016. Web. 9 July 2016.

Officer, ACS. "Australian Coastal Society – People". *Australiancoastalsociety.org*. N.p., 2016. Web. 9 July 2016.

Thom, B. (2016). Interview with scientist Bruce Thom. Phone Interview 24/06/2016.