



Lifelong Learning

**Newsletter
August &
September 2024**

OCEAN SERIES

**Tuesday 27th August Prof. Adrian McDonald
Climate Change and Antarctica**

**Tuesday 3rd September Dr Bridie Allan
Plastic Pollution in our Oceans**

**Tuesday 10th September Cindy Baxter
Seabed Exploitation**

**Event Centre
Doors open 9.30am
Speaker starts at 10.15am**

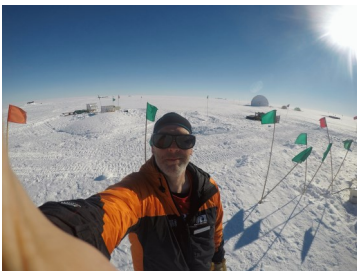
Please invite your friends to this series as casual visitors and a chance for them to learn about belonging to U3A.

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Prof. Adrian McDonald

Title: Climate Change and Antarctica



Antarctica's climate is unique, due to its extreme cold temperatures, dryness, and isolation from the rest of the world's weather systems. However, climate change is having a significant impact on Antarctica, with rising temperatures causing sea ice loss and melting of Antarctica's ice sheets. This

talk will describe why reductions in greenhouse gas emissions are needed to mitigate the effects of climate change on Antarctica and the rest of the planet.

Adrian has been a lecturer in Climate and Atmospheric Physics at the University of Canterbury for over 20 years. As part of his research he has travelled to Antarctica over 20 times and is a past director of Gateway Antarctica, University of Canterbury's Centre for Antarctic Scholarship and Research. Adrian's research focuses on understanding processes relevant to the climate system, making fundamental atmospheric measurements and the evaluation of environmental models. He was actively involved in the Deep South National Science Challenge and was one of the first researchers to be supported in the initial steps of the Challenge; science lead of the Processes and Observations programme between 2016 and mid-2019; an associate investigator in Te Pūnaha Matatini and the Antarctic Science Platform; member of the Ministry for Environment's Science Advisory Panel.

Contact U3A:

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The event centre has a hearing loop which is always on (apart from the odd exception). You may need to adjust your own hearing aid to the loop if needed.



We hope you enjoy your hot drink which we are trialling for the remainder of our sessions this year. This will be available from 9.30am onwards.

Have you thought about going out for lunch together? Both the MSA and RSA have very good lunch deals—they are popular so you may need to book.



The impacts of microplastic pollution of the behaviour and fitness of marine animals.

DR BRIDIE ALLAN University of Otago DEPARTMENT OF MARINE SCIENCE

The intense consumption and rapid disposal of plastic products is leading to the widespread accumulation of plastic debris in marine ecosystems, particularly in coastal ecosystems. Dr. Bridie Allan will discuss the sources and fate of marine plastics, along with the broad impacts on marine taxa (a classification system).

Dr. Bridie Allan's research explores how environmental changes can alter the mechanisms underlying population processes and how these changes scale to community dynamics. To do this, she uses field collections, observations and experiments in conjunction with laboratory experiments to investigate a wide range of impacts including climate change, oil pollution, habitat disturbances, microplastic pollution, and other human activities that influence the physiology, behaviour and survival of fish. Her field sites span both tropical and temperate regions.

Kia mate ururoa, kei mate wheke—Fight like a shark, don't give in like an octopus



Our marine environment and the threats to it from climate change and pollution; seabed mining

Cindy Baxter is passionate about our marine environment and the threats to it from climate change, pollution and seabed mining. She will share information about the Pygmy Blue whales - a genetically distinct species unique to NZ that calls the South Taranaki Bight home - only recently discovered; Maui and Hector's dolphins - possibly the best hope for the preservation of the Maui is to give them a breeding link with the South Island Hector's; little blue penguins - korora - travel to Patea in shoals from the Sounds to feed.

South Taranaki Bight is where the seabed miners want to start business - Cindy will discuss what they want to do, potential impacts, what we know and what we don't know; summarise the decade-long battle to stop it happening and why - what we don't know about seabed mining. Alongside the fishing industry, Maori, community groups, surfers, recreational fishers... the broad section of ocean lovers; touch on the government's fast-track bill which the seabed miners are now trying to use to get their application across the line. The attempt to saw off seabed mining on the Chatham Rise for phosphate, being touted as "sustainable", but while it's low in cadmium it also contains radioactive polonium. Taking an International perspective—seabed mining has big new potential industry in the Pacific—the rules still being drawn up. NZ supports a global moratorium. Recent discoveries about the seafloor - creating oxygen; important carbon sink; critical minerals: do we need them?

Cindy's background, has strong Canterbury ties. She was born in Geraldine, raised on a farm near Ruapuna. Went to the dentist in Mayfield; Ashburton was the "big smoke"! Fish n chips in Tinwald before heading off down the Maronan Road. Her uncle was a member of the Ashburton Racing Club - Cindy has his binoculars. Her grandfather introduced the first salmon into the Rangitata River.

Cindy trained as a journalist, worked at The Press in Christchurch, (environment reporter, then health and politics). She covered the Rakaia River Conservation Order. In 1986 she travelled to London for two years, during which time she ended up at the 1987 Greenpeace vs France case over how much the French would pay for blowing up their boat. On return to NZ in 1988, Cindy worked for Geoffrey Palmer as a press secretary (Environment portfolio), until the 1990 elections. 1991 saw her back to London to work for Greenpeace International communications on their global climate campaign. She worked in London for 12 years, mostly on global climate change, In 2004-6 Cindy worked as campaign manager, Greenpeace Aotearoa/NZ. In 2006 she returned to international climate change work - as a communications consultant working on global climate change. Clients include the Climate Action Tracker, a project tracking government action on climate change; Climate Analytics, a climate research think tank, and the Deep Sea Conservation Coalition NZ - campaign to protect seamounts from bottom trawling.

In 2010 Cindy moved to the black sand beach community of Piha. In 2012 she learned that Rio Tinto had an exploration licence to mine the seabed off her beach so she joined Kiwis Against Seabed Mining, a tiny voluntary community group, which she now chairs.

**Next meeting will be 22nd October 2024
(no meeting in late September due to Ocean series)**