



Royal Society Te Apārangi Wellington Branch and the Royal Society Te Apārangi Joint Public Lecture

On Thursday 27 June at 6.00 pm the Royal Society Te Apārangi Wellington Branch and the Royal Society Te Apārangi will host a free public lecture. We hope that you will attend and contribute to the discussion afterward. Please come along. Full details of the lecture are given below.

Thursday 27 June 2024

**6.00 - 7.00 pm at lecture theatre LBLT118, Laby Building, Victoria University
of Wellington.**

SURFACE TEMPERATURE TRENDS AND VARIABILITY IN NEW ZEALAND AND SURROUNDING OCEANS 1870-2024 AND BEYOND

Dr. Jim Salinger, Victoria University of Wellington

Surface temperatures in the New Zealand region, including land and sea, from instrumental temperature measurements have increased rapidly in recent decades. This huge area of 4 million km² shows an increase of over 0.7°C from 1871 - 2024. Future warming from the late 19th century is projected to be 3°C by 2100.

The principal cause of these increases is the dramatic increase in greenhouse gases from human sources. However, significant variability can occur from year to year, and between decades, from natural causes. Six significant volcanic eruptions have caused temporary cooling, whereas positive episodes in the Southern Annular Mode, when westerly winds strengthen over the Southern Oceans, cause warming. The El Niño/Southern Oscillation (ENSO) causes swings between cooler El Niño and warmer La Niña periods of climate. Overall

anthropogenic warming signals from greenhouse increases are projected to cause further warming during this century.

Brief Biography

Kiwibank New Zealander of the Year, Dr. Jim Salinger has devoted his research career to climate change and variability, including first uncovering warming in New Zealand in the 1970s. He contributed to the Intergovernmental Panel on Climate Change winning the 2007 Nobel Peace Prize. Winner of international and overseas awards, Jim is based at Victoria University of Wellington, School of Geography, Earth and Environmental Science.

A distinguished international climate scientist, he has dedicated almost fifty years to advancing climate science. Recognised as one of the first scientists to address global warming, his pioneering work in 1975 marked the inception of a remarkable career. Jim's contributions include ground-breaking research on Southern Hemisphere climate change, earning him the prestigious New Zealand Science and Technology Medal in 1994. With over 190 publications and counting, Jim is an influential communicator on climate change, addressing audiences nationwide.

He was a lead author for the Intergovernmental Panel on Climate Change, which earned the Nobel Peace Prize in 2007. More recently, Jim has garnered multiple accolades, including the 2018 World Meteorological Organization Award and the 2019 Jubilee Medal, in recognition of his lifetime achievements in climate and agricultural science. Today, he remains an advocate for environmental responsibility, offering practical advice through talks around the country and is a founding member of the intergenerational ambassadors – a collective looking to unite New Zealanders across the generations for positive change.

We hope to see you there.

David Lillis

Royal Society Te Apārangi Wellington Branch