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

On Wednesday 26 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 afterwards. Please come along. Full details of the lecture are given below.

Wednesday 26 June
6.00 - 7.00 pm at the Royal Society Te Apārangi premises,
11 Turnbull St. Thorndon, Wellington

Mass extinctions, the Earth System, and the importance of preserving the planet's biodiversity

Mike Hannah, Adjunct Professor - School of Geography, Environment and Earth Sciences, Victoria University of Wellington

Hardly a day goes by where there isn't a media report of a species under threat of extinction or, in fact, going extinct. As species are being driven to extinction many consider that today's biodiversity crisis is the beginning of a mass extinction event similar to those recorded in the fossil record. But is that the case? How close are we to events where up to 96% of species went extinct? In this lecture I want to set today's human-induced biotic crisis into its historical setting. How do today's extinction rates compare with the ancient extinction events? What triggered the ancient events? Is something similar happening today?

To answer these questions and more, we need to discuss the planet's life support system, the Earth System. This autonomous system attempts to both

maintain the planet's climate in a more-or-less stable equilibrium and ensure that the climate is suitable for the continuation of life on Earth. It is, I believe, the key to understanding both the ancient mass extinction and today's biodiversity crisis.

We hope to see you there.

David Lillis
Royal Society Te Apārangi Wellington Branch

Biography

Mike completed his doctorate at Adelaide University, specializing in palaeontology and biostratigraphy, using microfossils to examine climate changes in the Indian Ocean region leading up to the mass extinction that ended the Cretaceous. Following his PhD research, he spent a number of years with ESSO Australia Ltd, studying microfossils from oil exploration wells located across Australia.

In the early nineties he joined Victoria University as a lecturer in biostratigraphy. At Victoria, he was fortunate to be involved in two major Antarctic drilling projects investigating the history of the Antarctic ice sheets. His book, *Extinctions – living and dying in the margin of error*, published by Cambridge University Press, was nominated as one of Nature's top five books of the week where it was described as a 'measured, thought-provoking analysis.' It was also awarded 'Outstanding Academic Title' in the 2022 Choice Awards, from the American Library Association's (ALA) prestigious annual list.