



Welcome to the Crafoord Academy Lecture 2019

# Climate, CO<sub>2</sub>, and Sea Level: What's Past is Prologue

*Maureen E. Raymo, Lamont-Doherty Observatory,  
Columbia University, USA*

*Tuesday 3 December 2019 at Lund University Main Auditorium, Universitetshuset,  
Paradisgatan 2, Lund*

The Earth is warming up. The on-going pollution of our atmosphere with an invisible odourless gas called carbon dioxide, is trapping heat at the Earth's surface and causing temperatures to rise on land and in the ocean. The polar regions are warming fastest of all as reflective snow and ice is replaced by more heat-absorbing land and sea. The melting ice sheets are causing sea levels to rise around the globe. In this talk I will review the evidence for climate change, natural and anthropogenic, and explore how ice sheets and sea level changed in the past. How fast climate changes in the future will depend on our collective actions as individuals, families, communities, and governments.



Photo: Lee Stevens

Maureen E. Raymo is a renowned scientist who has been a pioneer in the study of ice ages and sea level in Earth's history. Her work has shaped our understanding of Earth's natural climate variability and her landmark papers have influenced a generation of scientists. In 2014, Professor Raymo, a fellow of the National Academy of Sciences, The Explorers Club, and the American Geophysical Union, became the first woman to be awarded the Wollaston Medal, the Geological Society of London's most senior medal and highest accolade.



## Programme

- 12.15**      **Lunch for registered schools and participants**
- 13.15**      **Welcome remarks and presentation of the Crafoord Foundation**  
*Martin Jakobsson, chairperson Crafoord Committee for Geosciences*
- Earth sciences and climate research**  
*Martin Jakobsson, chairperson Crafoord Committee for Geosciences*
- 13.30**      **Crafoord Academy Lecture 2019: Climate Change, CO<sub>2</sub>, and Sea Level: Past is Prologue**  
*Maureen E. Raymo, Lamont-Doherty Observatory, Columbia University, USA*
- 14.10**      **The role of the sun in the climate**  
*Raimund Muscheler, Lund University*
- 14.25**      **Panel discussion**  
*Maureen E. Raymo, Lamont-Doherty Observatory, Columbia University, Emma Kritzberg, Lund University, Raimund Muscheler, Lund University and students.*  
*Moderator: Mats Eriksson, Lund University*
- 14.55**      **Presentation of the Crafoord Academy Lecture diploma**
- 15.00**      **Closing**  
*Martin Jakobsson, chairperson Crafoord Committee for Geosciences*

More information: [www.kva.se/CrafoordAcademyLecture2019](http://www.kva.se/CrafoordAcademyLecture2019)

Organisers: The Royal Swedish Academy of Sciences and the Crafoord Foundation.

