Wicked Problems, Wolfpack Solutions • Global Change

Earth's Climate Change History

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ABSTRACT

This video explores the wonder of the big story of the Earth while highlighting the unusualness of our moment. Ethan Hyland, Ph.D. describes the major changes in climate over the last half billion years, how we know about them, and what caused them. He focuses on three periods, a “greenhouse” warming, an “icehouse” cooling, and the relatively stable climatic conditions in which our species evolved, a moment of good fortune in a bumpy prehistory. Finally, he provides context for the last 100 years, considering how the changes we have wrought fit into the bigger story and relate to past examples of change.

Originally from the outdoors of rural Maine, Ethan Hyland got his bachelors’ in geology from Carleton College. He then worked for the National Park Service before returning to the University of Michigan for a masters in paleobotany, a certificate in science policy, and a Ph.D. in paleoclimatology and sedimentology (geology). Hyland then served as the “Future of Ice” postdoc at the University of Washington and spent time as a visiting scientist at Los Alamos National Laboratory before coming to NC State to start the [Paleo³ Research Group](#) in 2017. Hyland is an associate professor in the Department of Marine, Earth and Atmospheric Sciences at NC State.

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Earth's Climate Change History (Ethan Hyland)

This video was originally produced for an audience of entering first-year and transfer students at NC State University as a part of an interdisciplinary experience. It is available for noncommercial reuse under a Creative Commons Attribution Noncommercial 4.0 License, <https://creativecommons.org/licenses/by-nc/4.0/>.

TRANSCRIPT**SUPPLEMENTAL MATERIALS**

1. [Paleo3 Research Group website](#)