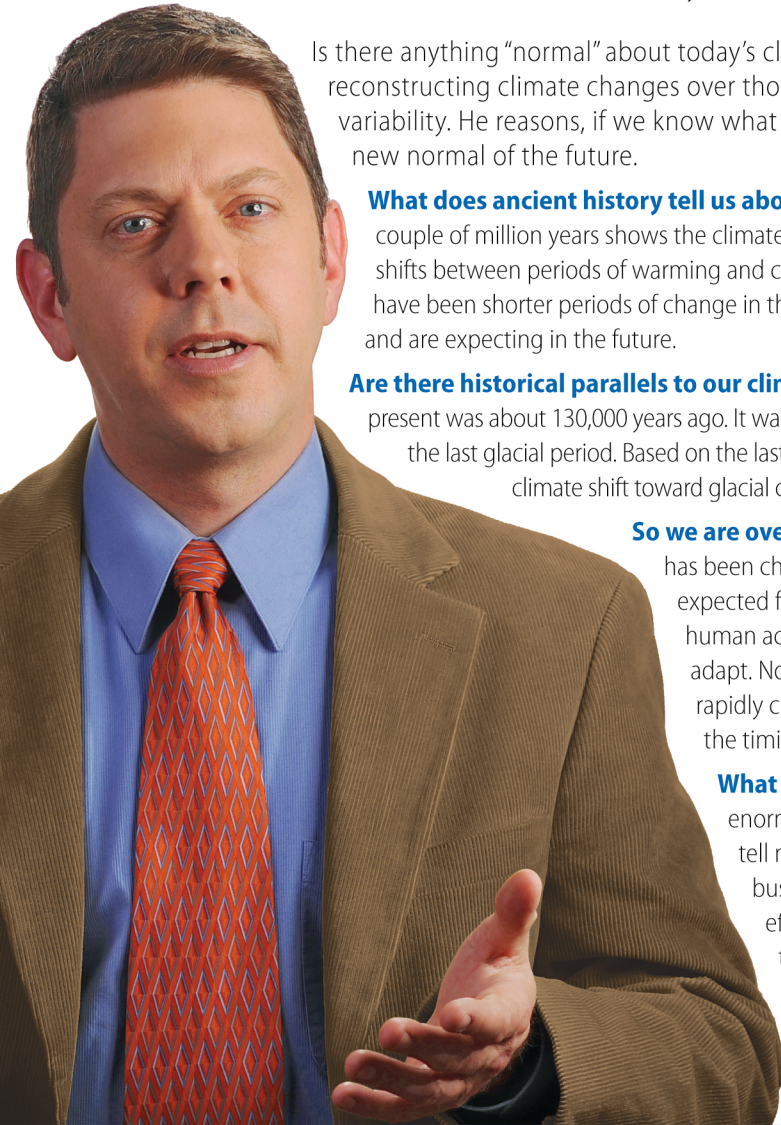


# Global Warning

*To predict how climate change will impact us in the future, we have to look back – way back.*

— A conversation with **Rick Oches**, Associate Professor of Geology and Environmental Sciences, Bentley University



Is there anything “normal” about today’s climate? Not for long, says geologist Rick Oches. He’s reconstructing climate changes over thousands of years in order to understand natural climate variability. He reasons, if we know what “normal” is, we can better project—and adapt to—the new normal of the future.

**What does ancient history tell us about climate change?** The geologic record spanning the last couple of million years shows the climate oscillating on regular cycles. We can document the natural shifts between periods of warming and cooling, which occur gradually over a few thousand years. There have been shorter periods of change in the past, but nothing on the scale that we’ve experienced recently and are expecting in the future.

**Are there historical parallels to our climate today?** The last period when climate was similar to the present was about 130,000 years ago. It was pretty stable as a warm interval and gradually transitioned into the last glacial period. Based on the last several cycles, we would have expected to see our present climate shift toward glacial conditions long before now.

**So we are overdue for an ice age?** In the last few decades, the climate has been changing much more rapidly and in a different direction than expected from geologic records. Most climate scientists attribute this to human activity. When change is gradual, life on Earth has a chance to adapt. Now, we’re seeing plant and animal species struggling to thrive in rapidly changing conditions, increased stress on water resources—even the timing of growing seasons is shifting.

**What are the implications?** Stresses on resources all have enormous environmental, economic and ethical implications. As I tell my students: the future will be different in terms of climate. As business leaders, they will have to identify innovative solutions and effective adaptation strategies for the environmental challenges they’ll face. The more they know about science, the better decisions they will make.

*To learn more about education, research and accountable leadership development at Bentley University, please visit our website.*

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