

## Climate Change – Bringing Weather on Steroids

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<http://naturechange.org/2016/04/08/climate-change-bringing-weather-on-steroids/>

Recently, ***Nature Change*** had the opportunity to talk about the impacts of climate change with three respected experts at the University of Michigan: Dr. Don Scavia, Professor and Directory of the Graham Sustainability Institute; Dr. Knute Nadelhoffer, Professor and Director of the UM Biological Station (Pellston, MI); and Dr. Phil Myers, Emeritus Professor of Ecology and Evolutionary Biology.

Through individual interviews, we learned that climate refers to the long-term trends in weather. The day-to-day variations in weather can sometimes mask the long-term signal or trends of change. However, measurements show that the climate has already changed in our region, including an increase in temperature and a timing shift in precipitation patterns.

Climate models have been used for many years to develop a better sense of what the future might hold. These models indicate that the climate Michigan residents grew up with will continue to change over the coming decades, to something like what people feel in Arkansas today.

### **Topics Covered**

Climate Change; Weather; Biology; Planning; Adaptation

### **Next Generation Science Standards**

- 3-ESS2-1. Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.
- 3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.
- HS-ESS2-4. Use a model to describe how variations in the flow of energy into and out of Earth's systems result in changes in climate.
- HS-ESS3-5. Analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems.
- HS-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.