

Emerging Ideas and Interdisciplinary Perspectives on Climate Change

**DISCCRS VIII Symposium;
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The challenges posed by global climate change require basic scientific knowledge and management strategies drawn from tools, techniques, and insights from across the social, natural, and engineering sciences. The Dissertations Initiative for the Advancement of Climate Change Research (DISCCRS) was formed in 2002 to prepare recent Ph.D. recipients for successful interdisciplinary collaborations. Since its inception, more than 2400 early-career scientists representing nearly 600 institutions and 69 countries have logged on to the DISCCRS website (<http://disccrs.org/>) and signed up for its e-newsletter. In addition, DISCCRS has hosted eight symposia, gathering 279 scholars from 28 countries to catalyze interdisciplinary climate research.

The DISCCRS VIII Symposium, held at the La Foret Conference Center in Colorado Springs, Colo., gathered 37 scholars drawn from the fields of biology and ecology (9), engineering (7), physical sciences (2), geosciences (10), and social and behavioral sciences (9) and representing nine countries. The symposium was organized by C. Susan Weiler (Whitman College) and Ronald B. Mitchell (University of Oregon) and included mentors from a variety of disciplinary backgrounds, as well as communications and team-building specialists.

At the symposium, scholars gave presentations describing their personal and professional backgrounds, past and current research, and future plans, with an emphasis on interdisciplinary collaborative research.

Experts also provided close mentorship throughout the week with sessions on developing policy-relevant research and identifying how to connect with policy makers; honing communications skills for different audiences, including potential collaborators from different fields, the media, and the general public; and identifying and discussing notable scientific trends in each discipline.

Presentations of scholarly research and exposure to emerging scientific trends provided the basis for discussions of key climate change research topics as well as ways the interdisciplinary research process could be improved. During the week, the scholars identified their major challenges in conducting interdisciplinary research. These include ensuring the compatibility of methodologies and measurements, building productive relationships that overcome disciplinary jargon and alternative worldviews, and achieving scientific rigor that is on the cutting edge of both disciplinary and interdisciplinary science.

Although mentors described various solutions (e.g., communications training and the development of cross-disciplinary literacy), the chief solution among these was straight-

forward: creating the space and opportunity for focused and dedicated discussion among scientists from diverse fields around a unifying concept—in this case, climate change.

In this environment, research questions at multiple scales and appropriate interdisciplinary methodologies to address these questions emerged organically. An interdisciplinary investigation into emerging trends in climate change research highlighted areas of certainty and uncertainty, underscoring the need to effectively communicate both. Another notable outcome was the value of developing a diverse peer cohort to better prepare symposium scholars to overcome the challenges of interdisciplinary research. Finally, despite the large diversity in backgrounds, the compelling issues associated with addressing climate change served as a uniting theme for collaboration.

DISCCRS is sponsored by 10 scientific societies, including AGU, and funded by the U.S. National Science Foundation and NASA. This was the last symposium of the current grant; a new grant proposal is being prepared. Background on the symposium scholars and mentors and resources for interdisciplinary climate research are posted on the DISCCRS website (http://disccrs.org/files/DISCCRS_VIII_Symposium_Scholars.pdf).

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