



The John Wesley Powell Center for Analysis and Synthesis

Enhancing scientific problem-solving and discovery through integrated research

The Powell Center provides an environment for cross-disciplinary scientific collaboration. The Center expands U.S. Geological Survey earth system science synthesis research activities by fostering the innovation that results from accumulated knowledge, constructive errors, and the "information spill-over" that emerges from collaborative settings. Working Groups at the Powell Center use existing data to produce new knowledge.

The Powell Center Seeks Project Proposals

The Powell Center seeks Working Groups whose projects will develop and test important earth system science concepts through use of existing data and cutting-edge analysis of earth system information.

Our goal is to be able to support 10 Working Groups each year. A pilot effort with the National Science Foundation beginning in 2012 will support one to two jointly funded Working Groups that integrate USGS and academic scientific synthesis in earth system science.

The Powell Center proposal process is explained at <http://powellcenter.usgs.gov>

What Is a Working Group?

- Working Groups are teams composed of 8–15 scientists.
- Scientists in Working Groups may be at any stage of their careers and come from diverse disciplinary backgrounds; they may include practitioners of resource management or policy. Working Group participants may include non-USGS and international scientists.
- Working Group members meet for a week at a time for intensive collaboration.
- Analysis and collaboration continue between Powell Center meetings through the use of remote communication technologies.
- Working Groups typically meet several times over a span of one to two years.

Powell Center Facilities and Support

The Powell Center is located at the U.S. Geological Survey Fort Collins Science Center (FORT) in Fort Collins, Colorado. Features include advanced collaborative workroom facilities and a superior staff. The Powell Center informatics and computing staff coordinates with the designated Working Group data manager to determine and accommodate technical needs. The Powell Center provides Working Groups with:

- Online collaborative tools for file storage, information sharing, and virtual discussion;
- Storage for large datasets;
- Computing infrastructure for data modeling and custom applications;
- Data processing capabilities; and
- Virtual tools to enable collaborative research between face-to-face meetings.



*U.S. Geological Survey
Fort Collins Science Center
2150 Centre Ave, Building C
Fort Collins, CO 80523*

Proposal Review

Proposals are reviewed by a Science Advisory Board that reflects the breadth of earth system science.

Successful proposals are awarded participation costs, including airfare, hotel, and per diem expenses. Salary support for Powell Center Fellows to aid Working Group advancement is available, as are funds for page charges and USGS salary while onsite at the Powell Center.

Successful Working Groups also spend time free of everyday distractions in beautiful pedestrian- and bike-friendly Fort Collins. Loaner bikes are available to Working Group participants.



Currently Funded Projects

Current and newly-selected Working Group activities range in scale of inquiry from regional to global and from the Pliocene into the future. Four Working Groups are currently in progress, and five more will begin in 2011.

Working Groups in Progress (Initiated 2009–2010)

- Developing an Integrated Multidisciplinary Framework for USGS Resource Assessments
- Characterizing a Link in the Terrestrial Carbon Cycle: A Global Overview of Individual Tree Mass Growth
- Circumpolar Assessment of Ecological Mismatch between Avian Herbivores and Plant Phenology
- Integrating Ecological Forecasting Methods To Improve Prioritization of Natural Resource Management: An Invasive Species Example

Working Groups Starting in Fiscal Year 2011

- Hydraulic Fracturing and Water Resources: An Assessment of the Potential Effects of Shale Gas Development on Water Resources in the United States
- PlioMIP (Pliocene Model Intercomparison Project) Strategy, Communications, and Synthesis for the IPCC Fifth Assessment Report (IPCC AR5)
- Animal Migration and Spatial Subsidies: Establishing a Framework for Conservation Markets
- Global Croplands and Their Water Use for Food Security in the Twenty-First Century
- System Analysis of Land Use and Climate Effects on Ecosystem Services Affecting C and N Exchanges with the Atmosphere and Water Cycles



Deadline for proposal submission:
November 30, 2011
and April 30, 2012

For more details, please visit
<http://powellcenter.usgs.gov>

or contact the directors:
Jill Baron (jill_baron@usgs.gov) or
Marty Goldhaber (mgold@usgs.gov)