

CENTER SCIENCE AND TECHNOLOGY POLICY RESEARCH FOR COOPERATIVE INSTITUTE FOR RESEARCH IN ENVIRONMENTAL SCIENCES UNIVERSITY OF COLORADO AT BOULDER



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http://sciencepolicy. colorado.edu/ogmius.

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Intro to Ogmius Exchange Preble's Meadow Jumping Mouse

he Preble's meadow jumping mouse (Zapus hudsonius preblei) (Preble's or PMJM), a small

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approximately 9-inch long rodent, was listed as a threatened species under the Endangered Species Act in 1998. Preble's habitat is in fragile riparian areas along the eastern side of the Rockies. Consequently, developers claim, the mouse's ESA protection has blocked or impeded millions of dollars worth of development along the Front Range. All of that may soon change as the U.S. Fish and Wildlife Service recently proposed to delist the Preble's. This decision is based upon a report by Ramey et al. finding that the mouse is not a discrete taxonomic entity, does not meet the definition of a subspecies, and was listed in error.

This month's Ogmius Exchange uses the Preble's controversy as a lens through which to examine more broadly the role of science in policy decisions. The author is Anne Ruggles, a wildlife biologist, attorney, and Visiting Scholar at the Center who has been actively engaged in research with Preble's including population estimates, determining distribution, radiotelemetry, and writing management recommendations and plans.

For more information see:

Holthouse, David, 2005: "Building a Better Mousetrap." Westword, Jan. 20-26, pp. 19-25, and responses in the Jan. 27 – Feb. 2 issue at p. 6, http://www.westword.com/ issues/2005-01-20/news/ feature print.html.

Johnson, Kirk, 2004: "Debate Swirls Around the Status of a Protected Mouse." New York Times, June 27, http:// www.nytimes.com/2004/06/27/ science/27mouse.html.

Martin, Andrew, 2004: "Good science trumps advocacy: Genetic study of Preble's mouse flawed, no basis for change in protected status." Daily Camera, August 1.

U.S. Fish and Wildlife Service Mountain-Prairie Region, Endangered Species Program – Preble's Meadow Jumping Mouse page, http:// mountain-prairie.fws.gov/preble/ index.htm.

See also the May 2002 Ogmius discussion of the Data Quality Act, http://sciencepolicy.colorado.edu/ ogmius/archives/issue 2/ index.html, which touched on some of the same issues that are raised in the Preble's case.

Ogmius Exchange Of Mice and Men: The Endangered Species Act and Preble's Meadow Jumping Mouse

S cientific debate is often a surrogate for debate over societal values. A recent example is the controversy over the Preble's meadow jumping mouse (PMJM), a 20-gram mouse living in



riparian areas along the eastern Front Range of Colorado and southern Wyoming. Consider the following reactions to the proposed delisting of the mouse as a threatened species under the Endangered Species Act (ESA):

"We are confident science is on our side. This mouse has cost the state hundreds of millions of dollars" (a developer on learning that PMJM had been proposed for delisting).

"They are removing protection based on sloppy science and political pressure. Riparian areas in the state will be completely developed" (a conservationist on learning that PMJM had been proposed for delisting).

"There appears to be a substantial disconnect between accepted scientific standards and how science is used in decisions regarding endangered species management. The Endangered Species Act faltered around this one critter. Objective and independent peer review should be sought for proposed listings . . . and delistings" (a scientist testifying before the House Committee on Resources).

As these quotes illustrate, disputants in environmental controversies look to science to legitimize their preexisting value preferences. But is this an appropriate role for science? What are the consequences for both science and politics of waging value disputes through science?

PMJM was listed as a "threatened species" under the ESA in 1998 because of decline in the quality and extent of its habitat. At that time, its classification as a subspecies of the meadow jumping mouse - based on a 1954 peer reviewed study - was widely accepted by scientists. However, this classification was challenged in 2004 by a study by Ramey et al. that included morphological analysis of skulls and phylogenetic analysis of a small amount of mtDNA, and that concluded there was no basis for distinguishing PMJM. Immediately following the announcement of these results in the news media, but prior to any peer review, the U.S. Fish and Wildlife Service (FWS), which enforces the ESA, received two petitions to delist the mouse claiming PMJM does not meet the definition of a separate species and therefore was listed in error. Adding or removing a species from ESA protection must be supported by the "best scientific and commercial data available". In response to the petitions to delist FWS asked fourteen scientists with relevant experience to review the Ramey study. Five supported its findings, though two of these felt the mouse remained imperiled; six were critical of the methods and/or skeptical of the conclusions; and three provided mixed reviews. FWS concluded that the PMJM should be considered for delisting.

What constitutes the "best scientific and commercial data available"? The term is not defined in the ESA. Legislative history, agency guidelines, and case law have interpreted it to mean that conclusive evidence is not required before listing decisions can be made. Agencies are directed to consider all of the information (published and unpublished) available and when scientific data are equivocal they are to give the benefit of the doubt to the species.

In this case, arguments about "the best available science" have centered on whether the science in question has been peer reviewed. Some who generally would like to see fewer species listed under the ESA argue that independent peer review (beyond the required administrative peer review) should be employed before listing decisions are made. However, the Ramey et al. study had not yet been published in a peer-reviewed journal when it was submitted with the petition to delist. Publication in a peer-reviewed journal is the accepted process for proposing taxonomic changes.

On the other hand, those who do not feel that the "best available science" standard should require independent peer review (and would generally like to see stronger ESA protections) maintain that the current process for listing species is already sufficiently cumbersome. The Ecological Society of America fears that requiring independent peer review may unnecessarily lengthen the listing process without providing any substantial benefits. The American Institute of Biological Sciences points out that, while peer review can identify data limitations or other uncertainties, it cannot resolve them.

Ironically some who are opposed to delisting the PMJM criticize the Ramey et al. study because it was not published in a peer-reviewed journal. These contradictions and heated arguments over peer review suggest that other issues may underlie the question of whether to delist the PMJM.

This controversy illustrates an all-too-familiar phenomenon described by Dan Sarewitz in his article *How science makes*

Ogmius Exchange Continued

environmental controversies worse (http://cspo.org/ ourlibrary/articles/EnvironControv.htm): "The growth of considerable bodies of scientific knowledge, created especially to resolve political dispute and enable effective decision making, has often been accompanied instead by growing political controversy and gridlock. Science typically lies at the center of the debate, where those who advocate some line of action are likely to claim a scientific justification for their position, while those opposing the action will either invoke scientific uncertainty or competing scientific results to support their opposition... The notion that science is a source of facts and theories about reality that can and should settle disputes and guide political action remains a core operating principle of partisans on both sides of ... environmental controversies."

So what might be done? Sarewitz suggests that "bringing the value disputes concealed by —and embodied in — science into the foreground of political process is likely to be a crucial factor in turning such controversies into successful democratic action." If politics could no longer hide behind scientific

controversy the parties would have to engage in the ordinary give-and-take of politics to identify areas of consensus, mutual interests, or low-stakes options. Science could then be used more appropriately to "support, monitor, and assess the implementation of policies that have been selected through the political process."

The PMJM debate – a surrogate for the debate over the value and effects of the Endangered Species Act – could be reframed as an examination of how we as a society value preservation of sensitive habitats, species diversity, and property rights, and what compromises we are willing to make. If we were to do this, we would be discussing the practical methods of preserving sensitive riparian areas and what is fair to landowners - rather than arguing over the meaning of mouse DNA.

> Anne Ruggles aruggles@igc.org

Project News Science Policy Assessment and Research on Climate (SPARC)

he Science Policy Assessment and Research on Climate (SPARC) project is one of five interdisciplinary teams funded by NSF in 2004 to study problems associated with understanding



climate-related decisions under uncertainty (DMUU). SPARC is a joint project between the University of Colorado at Boulder and Arizona State University.

SPARC focuses on the relationship between climate science policy and climate-related decision making. Over the past few decades, public support of climate science has been justified by its potential to support decision making related to human activities and their potential to alter climate. Science policy decisions shape the conduct and output of climate research by guiding resource allocations, disciplinary and interdisciplinary priorities and methods, institutional design, human resources, and standards of evaluation. Society's strategy for responding to and preparing for climate change in the face of ongoing uncertainty thus hinges on the relationship between science policy decisions and climate policy decisions. SPARC will conduct research and assessments, outreach and education aimed at helping climate science policies to better support climate-related decision making in the face of fundamental and often irreducible uncertainties.

The SPARC research agenda will focus on two themes:

- Reconciling Supply and Demand (RSD) for climate research, or how research agendas are developed and user demand for research assessed; and
- Sensitivity Analysis (SA), or how specific issues are prioritized given the multiple causes of global environmental change.

There are currently four SPARC research projects:

- Climate Science Policy in the Regional Integrated Science and Assessment (RISA) Program
- Reconciling Supply and Demand-Carbon Cycle Science Activities
- Ecosystem Function Sensitivity Analysis Activities
- Extreme Events and Climate Change

Through outreach SPARC seeks to build a boundary organization that can promote productive interaction among stakeholder groups. Current outreach efforts include a weblog, SPARC-sponsored and related events, SPARC and climate science policy news items, links, and a section for "SPARC Highlights."

Project News Continued Science Policy Assessment and Research on Climate (SPARC)

SPARC supports graduate students and post-docs at both campuses. It is committed to under-represented groups and is actively seeking partnerships with compatible programs at the University of Colorado and Arizona State University. Future opportunities will be posted on the SPARC website at

Project News Policy, Politics, and Science in the White House: Conversations with Presidential Science Advisors

r. John Marburger, science advisor to George W. Bush, launched this year-long series on February 14 by addressing a crowd of 400+ on the University of Colorado-Boulder campus. Dr. Marburger's prepared remarks (available at <u>http://</u> sciencepolicy.colorado.edu/



scienceadvisors/marburger_cu.pdf) were followed by a dialogue with Center director Roger Pielke, Jr., about several key science policy issues that have arisen during the Bush administration. Dr. Marburger then answered selected questions from the audience. A transcript of the event, along with a webcast, are available on the series website (http://sciencepolicy.colorado.edu/scienceadvisors). Dr. Marburger also visited classes and met with graduate students, local scientists, and CU faculty during his 2-day visit to Boulder.

The next scheduled event will be a talk by Bob Palmer, former Democratic Staff Director of the House Science Committee, on April 18 at 2:00 pm in the CIRES Auditorium. Dr. John Gibbons, advisor to Bill Clinton, is scheduled to speak on April 28 at 7:00 pm in Hale 270. Next fall we will host Edward David, advisor to Richard Nixon (September 12 at 7:00 pm in the Old Main Auditorium), Neal Lane, advisor to Bill Clinton (October 5-6, date of talk TBD), Donald Hornig, advisor to Lyndon Johnson (October 24 at 7:00 pm, location of talk TBD), and George Keyworth, advisor to Ronald Reagan (November 29 at 7:00 pm, location of talk TBD). In addition to the public talks each advisor will visit classes and meet with students, faculty, and scientists.

For more information visit the series website (<u>http://</u><u>sciencepolicy.colorado.edu/scienceadvisors/</u>). Updates about future events will be posted here as well as on the Center's home page.

Center Staff in the News

he Center's first talk in its Presidential Science Advisor series by John Marburger, science advisor to President George W. Bush, was the subject of a February 15 Daily Camera article, "President Bush's science adviser opens CU series: John Marburger talks about climate change and budgets", by Todd Neff (free registration required, <u>http://www.dailycamera.com/bdc/science/</u> <u>article/0,1713,BDC_2432_3548705,00.html</u>).

Roger Pielke Jr.'s work on hurricanes was cited in a February 15 Philadelphia Inquirer article on the debate over climate change, "A big blowup over hurricanes", by Anthony R. Wood (free registration required, <u>http://www.philly.com/mld/inquirer/living/health/10893416.htm</u>).

Roger Pielke, Jr. was quoted in a March 7 United Press International article on climate change policy and politics, "Climate: Taking things one step at a time", <u>http://</u> <u>www.washtimes.com/upi-breaking/20050304-125653-</u> 4583r.htm.

Roger Pielke, Jr. was quoted in an April 4, 2005 column in The Amercian Prospect on climate science views of the Bush Administration, <u>http://www.prospect.org/web/page.ww?</u> section=root&name=ViewWeb&articleId=9426.

Please see the Center's "In the News" webpage to view a list of past news archives at <u>http://sciencepolicy.colorado.edu/</u><u>center_info/archives/news.html</u>.

Research Highlight Misuse of Science

ast May a group of high-achieving undergraduates participated in a critical thinking course at the University of Colorado-Boulder titled "The Use, Misuse and Abuse of Science in Policy and Politics." The goal of the course was to better understand recent debate and discussion about the role of science under the Bush Administration. The class syllabus can be found at <u>http://sciencepolicy.colorado.edu/homepages/roger_pielke</u>/<u>hp_roger/syllabus_maymester_2004.pdf</u>.

Attention had been focused on the Bush Administration because of a series of reports from the Union of Concerned Scientists and Congressman Henry Waxman (D-CA). Concern about the misuse of science is apparently bipartisan as the conservative-leaning Hoover Institution recently published a book about the misuse of science.

In our course we wanted to see if concern about the misuse of science had any basis, other than personal partisan preferences. We considered each case discussed by the UCS

and Waxman reports and the Hoover book and asked the following question: Does the data suggest a misuse of science and, if so, what exactly is that misuse? After going through this exercise we developed four categories of misuse and two categories of political use that was not clearly misuse. We then took these categories and explored the historical record to see if similar events occurred under the administrations of Bill Clinton and George H. W. Bush. The class findings are included in the following report:

Pielke, Jr., R. A. (ed.), 2004. Report on the Misuse of Science in the Administrations of George H.W. Bush (1989-1993) and William J. Clinton (1993-2001). By the Students in ENVS 4800, Maymester 2004, University of Colorado, June, <u>http://sciencepolicy.colorado.edu/admin/publication_files/</u> resourse-1429-ENVS%204800%20Report.pdf.

> Roger Pielke, Jr. pielke@colorado.edu

Center News Science, Technology, and Decision Making Symposium

n February 25 the Center sponsored an all-day public symposium to showcase the research and other efforts at the Center and the University of Colorado relating to science, technology, and decision making. The symposium included sixteen sessions on the following topics:

- Striking Back! Protecting Spectators from Lightning in Large Stadiums by Joel Gratz
- Changing the Climate on Climate by Susan Avery
- Does Water Flow towards Money or Downhill? Lessons from the Western Water Assessment by Brad Udall
- Assessing the Effectiveness of Lawn Watering Restrictions During the Drought of 2002 by Doug Kenney
- Transfer of forecasting methods from the research community to operational agencies: Lessons learned by Martyn Clark
- Climate Change and Regional Heat waves: Policy Implications by Tom Chase
- One-Stop Shopping for Usable Science: The Case of Climate Information by Genevieve Maricle

- Incorporating Large-Scale Climate Information in Water Resources Decision Making by Balaji Rajaopalan
- Science and Security in the Age of Bioterrorism by Lisa Keranen
- Decision structures for the new nuclear era by Jerry Peterson
- The Impact of Frequency Agile Radio Communications on Spectrum Policy by Doug Sicker
- Implications of Go-as-You-Pay for the Bush Space Vision by Shep Ryen
- Presidential Science Advisor Lecture Series by Bobbie Klein
- Journalism Values vs. Science Values: an uneasy match by Tom Yulsman
- From Linear Model to Pasteur's Quadrant by Elizabeth McNie
- In search of Pasteur's Quadrant: Opportunities and barriers in incorporating considerations of use in carbon cycle science research by Lisa Dilling

For more information and to view Powerpoint presentations see the symposium website, <u>http://</u>sciencepolicy.colorado.edu/events/st_decision_symposium/.

Center News Comings and Goings

inda Pendergrass recently joined our staff. Linda was the office manager for the CIRES message center. She will be assisting us with travel, updating and managing Center publications, office and building related issues, and student assistant tasks. Welcome Linda!



Sally Dowlatshahi, a graduate student who received her B.S. in electrical engineering from the University of Illinois-Chicago in December 2001, has joined our staff to help on the Science Policy Assessment and Research on Climate (SPARC) project.



Center News Rad Byerly Addresses NASA Meeting

n February 1, Rad Byerly spoke at a workshop in Boulder which NASA organized to determine what future capabilities it will need to accomplish President Bush's program for humans to return to the Moon, and for a subsequent trip to Mars. The workshop organizer invited Byerly, a member of the Space Studies Board (SSB) of the National Research Council, to present the results of two other workshops the SSB had conducted. The first one found that: NASA's human exploration program needed a goal beyond earth orbit and that Mars was a likely destination, and also that since we do not now know how to accomplish this, the program should proceed by steps, should learn from each step and modify its plans based on this learning, and should "go as you pay". The Administration announced a program very similar to what the workshop had recommended on the same day this workshop's report was released.

The second SSB workshop addressed the role of science in the new NASA exploration vision. It recognized that a great deal of research is needed to enable the vision and reciprocally that the vision might enable new kinds of space science research. It recommended in effect that such "enabled" science should not be given a high priority just because it could be done, but rather that all science should meet the criterion of "transforming" our understanding of space.

These SSB workshop reports form an important part of the context in which NASA will be carrying out its vision, and were relevant to deciding what capabilities should be developed. The workshop reports can be found at these links:

http://www7.nationalacademies.org/ssb/ SSB Space Policy Workshop.pdf

http://books.nap.edu/catalog/11225.html

Center News Lisa Dilling Presents at Fall AGU Meeting

n December 2004, Lisa Dilling presented at the Fall American Geophysical Union meeting, North American Carbon Program (NACP) Session on a Pilot Study on Reconciling Supply and Demand: Who are the Consumers of Information on the North American Carbon Balance? by L. Dilling, R. Pielke Jr. and D. Sarewitz. The main purpose of the presentation was to introduce the method of reconciling supply and demand for information to the carbon cycle science community.

In December 2004, Lisa Dilling also presented an invited talk, "Communicating the Urgency and Challenge of Global Climate Change: Lessons Learned and New Strategies" by L. Dilling and S. Moser at the Fall American Geophysical Union meeting, Communicating Climate Change session. This presentation synthesized work at a workshop at NCAR in summer, 2004, that examined some of the pitfalls of current communication strategies on climate change and suggested alternative approaches.

In April 2005, Lisa Dilling will be presenting a talk, "Toward Carbon Governance: Challenges for science and policy across scales" at the American Association of Geographers meeting in Denver, CO. Direct management of the carbon cycle is already becoming a significant option proposed to mitigate rising atmospheric CO2 concentrations. Decisions that affect the carbon cycle, whether inadvertently or deliberately, therefore occur at the widest possible variety of scales. This paper will examine how decision-making in institutions at different scales currently influences the carbon cycle and how scientific information enters the process.

Student News Elizabeth McNie to Co-Host Panel Session

olicy Center graduate student Elizabeth McNie and professor Maria Carmen-Lemos from the University of Michigan will be hosting a panel session at the 6th Open Meeting of the Human Dimension of Global Environmental Change Research Community to be held in Bonn, Germany October 9-13, 2005.



The title of the panel session is "Climate Science Policy Assessment and Research". The results of climate research play an important role in many climate-change policy decisions. But how do we know if ongoing research is meeting the needs of policy makers? The purpose of the panel session is to explore the following issues:

- 1. How is climate science information used by decision makers and what can we learn from the nature of users' information needs?
- 2. How do scientists determine what climate information to produce and what consideration do they give to users' needs in shaping climate science policies?
- 3. What do we know about the 'boundary' between science and policy and the role of 'boundary spanning organizations' that facilitate the production of credible, legitimate and relevant climate science that is also useful to policy decisions?

Elizabeth will discuss her research on the 'Supply and

Demand of Scientific Information for Decision Making' and Maria will present findings from her research on the use of climate forecasts by various governmental programs in Brazil. As part of the panel, Policy Center Director, Roger Pielke Jr., will present a talk titled "Shaping Science for Decision Makers: Lessons from the RISAs". His talk will present initial findings of a comparative assessment of the Regional Integrated Sciences and Assessments (RISA) projects of the U.S. National Oceanic and Atmospheric Administration. The RISAs are designed to integrate climate science with research on end users and are thus well positioned at the boundary of climate science and policy to help shape priorities and objectives of climate science programs designed to provide useful information to decision makers. Assessment of the RISA programs is part of the Center's \$2.4 million SPARC research project. Eva Lövbrand (University of Kalmar, Sweden) will present a paper titled "Between laboratory practice and policy involvement. Ideals, expectations and every-day concerns for Swedish carbon cycle science".

For a complete list of presenters at this panel session, or for more information, contact Elizabeth McNie at: <u>mcnie@colorado.edu</u>.

Elizabeth also had papers accepted at the American Academy of Science's "International Conference on Environmental Science and Technology" and the "Science and Technology in Society Graduate Student Conference". She also recently presented a poster at the AAAS conference in Washington DC.

Student News Lightning Threat to Large Outdoor Stadiums Article in Weatherwise Magazine

esearch about Lightning and Large Outdoor Stadiums by Center Graduate Students Joel Gratz and Erik Noble, and MBA student Ryan Church ('04) was published in the January/February 2005 issue of Weatherwise magazine (http://sciencepolicy.colorado.edu/ admin/publication_files/resourse-1707-2005.15.pdf). Joel also



presented this research at the Lightning Conference at the AMS Annual meeting in San Diego in January.



Photo of Joel and Mary Ann Cooper - a leader in the medical aspects of lightning injuries – in front of Joel's poster

Student News Joel Gratz and Erik Noble Participate in AMS Student Conference

enter graduate students Joel Gratz and Erik Noble helped plan and coordinate the 4th Annual Student Conference at this year's AMS Annual Meeting. More than 350 junior and senior undergraduate and



first-year graduate students attended the two-day event which featured speakers from industry, government, and academia, as well as time to interact in small groups with each other and invited professionals. Joel spoke to the students about broadening their perspectives on meteorology to include areas and occupations outside the norm, such as incorporating weather in business decision-making, transportation safety, and any other niche where one can add "M"eteorology to another field ("M" plus fill in the blank). The conference flowed smoothly and ended on time each day (what a feat!) thanks in large part to the efforts of Erik Noble who controlled the timing and audio/visual logistics. For more information visit the conference website (http:// www.ametsoc.org/MEET/85annual/studentconference/ index.html).

Student News

Joel Gratz Gives Noontime Seminar talk: "Commercializing Research: My summer experience at the CU Technology Transfer Office"

oel Gratz spoke at the Center's February 7 noontime seminar about his summer experience working for the University of Colorado's Technology Transfer Office (TTO). Joel worked largely with the Cooperative Institute for Research in Environmental Sciences (CIRES) technology and found the technology commercialization process interesting but also arduous at

times and very lengthy. With the support of the TTO and CIRES, Joel is working to start a Technology Commercialization advisory group for CIRES made up of past and current CIRES employees with experience and/or an interest in technology commercialization. Joel's presentation is available online on the Center's speakers page (http:// sciencepolicy.colorado.edu/center_info/center_talks.html).

Student News Shep Ryen Vice President for UGGS

enter graduate student Tind Shepper Ryen is a vice president for the United Government of Graduate Students. UGGS serves as the primary advocate for graduate and professional students at the University of Colorado, a role that is particularly



challenging and important given the financial difficulties faced by higher ed in the state of Colorado. UGGS leadership helps implement the policies of the assembly through state and campus lobbying, participation in campus boards and meetings, and leverage of a small UGGS budget. More information can be found at the UGGS website (http://uggs.colorado.edu).

Center Talks and Presentations

Noontime Seminar Series

his spring the Center has hosted a variety of fascinating talks in its noontime seminar series. On February 7 Center graduate student Joel Gratz gave a talk titled "Commercializing Research: My summer experience at the CU Technology Transfer Office." On February 28 Visiting Scholar Anne Ruggles spoke about "Wolf Management in Colorado: The Role of Science in Collaborative Decision Making." On March 7 Graduate School Dean and Faculty Affiliate Susan Avery gave a talk titled "Scientists Pushing Back." On April 4 Faculty Affiliate Frank Laird spoke about "Learning Complex Lessons:

Center Talks and Presentations Continued

Participation and Electric Utility Regulation." And on April 22 Faculty Affiliate Lisa Keranen will speak about "Constructing Character in Research Misconduct Controversies."

Information about the Noontime Seminar series, as well as past and future talks is posted on our Speakers page (<u>http://</u> <u>sciencepolicy.colorado.edu/center info/center talks.html</u>). We post available Powerpoint presentations from talks on this page.

Other talks

On March 11 Peter Weiss of the National Weather Service gave a talk titled "Borders in Cyberspace: Maximizing Social and Economic Benefit from Public Investment in Information."

On March 28, Sarah Michaels, a visiting scientist at NCAR, gave a talk titled "Taking steps towards a multidimensional view of the science-policy interface".

S&T News Global Environmental Change, Globalization and International Security: New Challenges for the 21st Century

he 6th Open Meeting of the Human Dimensions of Global Environmental Change Research Community, to be held October 9-13, 2005 in Bonn, Germany, is set up to promote a better understanding of global transformations, to identify the resulting



opportunities and challenges and to develop appropriate responses. This entails a critical assessment of what the community has achieved to date as well as the development of a forward-looking action plan that links human dimensions research into contemporary policy debates on future actions of the global community.

The ultimate goal is to fashion a human dimensions research agenda that is specific and relevant to current global realities

and scenarios of future trends in global transformations. These realities include not only social and cultural globalization and the prevailing free-market economic frameworks, but also alternatives emerging from groups that contest globalization. In addition, there is a need to consider the post-September 11th security concerns, which are shaping the potential and trajectory for cooperative approaches to global environmental governance.

The Center's Elizabeth McNie is co-hosting a session titled "Climate Science Policy Assessment and Research". The panel also includes the Center's Roger Pielke Jr.

More details, including information, application forms, timelines and deadlines, are available at the Open Meeting website, <u>http://openmeeting.homelinux.org</u>.

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S&T News Call for Papers, "The Ethics of Genetic Commerce"

Japha Symposium on Business and Professional Ethics November 11, 2005 in Boulder, Colorado

eeking academically-oriented studies of issues related to the ethics of genetic commerce. Likely approaches might



include: the ethics of genetic screening of insurance applicants or potential employees; social issues involved in the genetic modification of plants or the cloning of animals; business use of genetic information; access to gene therapy; and other concerns related to the creation, use, and control of genetic material and information. The key for successful submission is to focus on the business ethics of genetic commerce. Papers must be in English and an ideal length is 20 pages. Travel grants and honoraria will be available for paper presenters. Papers presented at the Japha Symposium will be published in our monograph series: Leeds School Series on Business and Society published by Blackwell Publishers.

Submit a two-page proposal by August 1 and final papers by September 15, 2005 to:

Lyla D. Hamilton, Faculty Director Center for Business and Society Leeds School of Business University of Colorado, 419 UCB Boulder, Colorado 80309 Lyla.Hamilton@Colorado.edu, (303) 735-4358

Please visit our Leeds School business and society web site to learn about our activities and to subscribe to our e-newsletter, <u>http://leeds.colorado.edu/businessandsociety/</u>.

Recent Center Publications

Mote P.W., A.F. Hamlet, M.P. Clark, and D.P. Lettenmaier, 2005. Declining mountain snowpack in western North America. Bulletin of the American Meteorological Society, January 2005, pp. 39-49, <u>http://sciencepolicy.colorado.edu/admin/publication_files/resourse-1699-2005.06.pdf</u>.

Pielke, Jr., R.A., 2005. A part of but apart from politics: Can Scientists advise policy-makers without compromising their objectivity? Book Review for Nature's Experts: Science, Politics, and the Environment by Stephen Bocking, Rutger's University Press: 2004, Nature, Volume 434, pp 139-140, http://sciencepolicy.colorado.edu/admin/publication_files/ resourse-1739-2005.26.pdf.

Pielke, Jr., R.A. and D. Sarewitz, 2005. Bringing Society back into the Climate Debate, Population and Environment, Volume 26, Number 3, pp. 255-268, <u>http://</u>sciencepolicy.colorado.edu/admin/publication_files/resourse-1688-2005.25.pdf.

Sarewitz, D., and R.A. Pielke, Jr., 2005. Rising Tide. The New Republic, Jan. 6, <u>http://sciencepolicy.colorado.edu/</u><u>admin/publication_files/resourse-1694-2005.01.pdf</u>.

Opportunities Research Scientist, Program Leader for Climate and Society Publications Series

he International Research Institute for Climate Prediction (http://iri.columbia.edu/) at Columbia University is seeking an outstanding individual with excellent analytical abilities and a research background in climate impacts and related policy arenas. The IRI mission is to enhance society's capability to understand, anticipate and manage the impacts of seasonal climate fluctuations, to improve human welfare and the environment, especially in developing countries.

The Research Scientist (RS)/Associate Research Scientist (ARS) will be responsible for leading the development and production of a flagship report series on climate and society. The report will help meet the needs of decision-makers and

the public for peer-reviewed, policy-relevant scientific information on the consequences of climate variability for society and options for response.

The incumbent is also expected to pursue his/her own scientific interests on the use of climate information for sustainable development within the research framework of the IRI. Relevant areas include climate impacts, decision systems and institutions and policy related to IRI regional programs in Africa, Asia, and the Americas.

Candidates must have: a Ph.D. in natural or social sciences, engineering or the humanities and a minimum of two years of experience at the post-doctoral level (ARS), or six years at the post-doctoral level (RS). Post-doctoral experience must

Opportunities Continued

reflect a combination of research and applied work, preferably in sustainable development in matters related to climate. Prior experience with producing reports that pull together a consensus of scientific opinion for international decision-makers is highly preferred.

Strong quantitative skills and demonstrated ability to communicate scientific information to a general audience are essential. Required skills include the ability to meet deadlines and ability to work collaboratively in a skilled group environment. Excellent written and oral communications skills and organizational habits are also required. This position is located in Rockland County, NY at the Lamont Campus of Columbia University. Prospective candidates please select 'apply now' to submit: contact information; letter of application including position reference number LD670 05 001; statement of research interests; statement of career objectives; curriculum vitae; and contact information for three references. Columbia University is an Equal Opportunity and Affirmative Action Employer. Women and Minorities are encouraged to apply.

For more information, please visit: <u>http://iri.columbia.edu/aboutiri/job/html/67005001.html</u>.

Science & Technology Policy Resources

- AAAS Directorate for Science and Technology Policy Programs, <u>http://www.aaas.org/spp/</u> The Directorate for Science and Policy Programs (SPP) serves society, government, and the research community through a diverse set of activities. Its programs address several objectives of the American Association for the Advancement of Science (AAAS), including furthering the work of scientists, improving the effectiveness of science in the promotion of human welfare, and fostering scientific freedom and responsibility.
- AGU Science and Policy, <u>http://www.agu.org/</u> <u>sci_soc/policy/sci_pol.html</u>

The American Geophysical Union's science and policyrelated activities, opportunities, and position statements.

 Consortium for Science, Policy, and Outcomes, <u>http://www.cspo.org/</u>

The Consortium for Science, Policy, and Outcomes is an intellectual network aimed at enhancing the contribution of science and technology to society's pursuit of equality, justice, freedom, and overall quality of life. The Consortium creates knowledge and methods, cultivates public discourse, and fosters policies to help decision makers and institutions grapple with the immense power and importance of science and technology as society charts a course for the future.

• Institute for Science, Engineering, and Public Policy, <u>http://www.isepp.org/</u>

The Institute for Science, Engineering and Public Policy is a public, non-profit corporation dedicated to the development of local understanding of issues concerning science, technology and society (STS).

Loka Institute, <u>http://www.loka.org/</u>
Founded in 1987, the Loka Institute is a non-profit research

and advocacy organization concerned with the social, political, and environmental repercussions of science and technology. Loka works to make science and technology more responsive to social and environmental concerns by expanding opportunities for grassroots, public-interest group, everyday citizen, and worker involvement in vital facets of science and technology decision making.

 National Academy of Sciences Board on Science, Technology, and Economic Policy, <u>http://</u> www7.nationalacademies.org/step/

The Board's objective is to integrate understanding of scientific, technological, and economic elements in the formulation of national policies affecting the economic well-being of the United States.

Office of Science and Technology Policy, http://www.ostp.gov/index.html

Serves as a source of scientific and technological analysis and judgment for the President with respect to major policies, plans, and programs of the federal government.

• **President's Council of Advisors on Science and Technology**, <u>http://www.ostp.gov/PCAST/pcast.html</u> PCAST was originally established by President George Bush in 1990 to enable the President to receive advice from the private sector and academic community on technology, scientific research priorities, and math and science education.

Washington Science Policy Alliance, <u>http://</u> <u>www.aaas.org/spp/wspa/</u>

The Washington Science Policy Alliance is a loosely-knit coalition of institutions that has banded together to conduct seminars and meetings around specific science and technology policy issues.

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