

## **ADNRSS Monthly Report–January 2011**

### **Heads Up**

CESU Network National Office Minority Fellowship: The CESU Network National Office Minority Fellowship Program invites applications from advanced graduate students for placement in the CESU Network national office in Washington, D.C. Summer applications are due February 28, 2011; fall applications are due April 4, 2011. For more information and application instructions, see <http://www.cesu.psu.edu/news/2011%20CESU%20Network%20Minority%20Fellowship%20Announcement.pdf>. (Contact: Tom Fish, 202-208-5972; Lisa Gerloff, 406-243-5346)

International Symposium for Society and Resource Management (ISSRM) Abstracts Due February 15: ISSRM is the premier scientific meeting for academic and government researchers, students, agency

scientists, land managers, NGO representatives, and other individuals who are broadly interested in the human dimensions of natural resource management issues. The National Park Service is a member of the planning committee for this year's conference, which will be held in Madison, Wisconsin, from June 4 to 8. The theme is "Integrating Conservation and Sustainable Living." More information about the symposium and online submission of abstracts can be found at <http://www.issrm2011madison.iasnr.org/>. (Contact: Kirsten Leong, 970-267-2191)

Undergraduate Training Opportunity: The Rocky Mountain Sustainability and Science Network (RMSSN), an NPS partner, is now accepting applications for the 2011 RMSSN Summer Academy. This is a one-week National Science Foundation-funded program providing intensive training to undergraduate students prior to either entering internships or jobs on public lands or embarking on summer research projects related to environmental science, climate change, or sustainability, followed by four-year involvement with others in the summer cohort. For more information, visit <http://rmssnacademy.colostate.edu>. (Contact: Kirsten Leong, 970-267-2191)

Acoustical Training to Be Offered: The NPS Natural Sounds and Night Skies Division (NSNSD) is hosting a three-day invitational training course in Noise & Vibration Concepts, Measurement, and Control. The training will be held at the Natural Resource Program Center building in Fort Collins, Colorado, from February 23 to 25. The invitational training will provide technical information to enable NPS attendees and selected partners to meet NPS management policy objectives in sections 4.9 and 8.2.2. Specific course topics include basic acoustics and terminology, noise control criteria, outdoor sound propagation, room acoustics, vibration criteria, and noise control techniques. Course attendees should become better informed consumers of noise engineering products and services, understand whether noise control is possible for various situations, and be able to identify what sort of treatments are practical and cost effective. Although videoconferencing is intended, there are a limited number of attendee openings. A course schedule is available upon request. (Contact: Randy Stanley, 970-267-2194)

## **New Developments**

National Parks Conservation Association Sues DOI and USDA for Unreasonable Delay in Responding to Visibility Petitions: In 2009 and 2010, environmental groups, including the National Parks Conservation Association (NPCA), petitioned the DOI and Department of Agriculture (USDA) to certify that certain coal-fired power plants are causing visibility impairment at nearby Class I national parks and wilderness areas. The DOI responded in 2009, saying we are meeting our affirmative responsibility to protect park visibility by reviewing and commenting on the concurrent regional haze control analyses for the same sources. NPCA filed their complaint against DOI and USDA on January 19. The Department of Justice is reviewing the draft response letter from DOI to NPCA. (Contact: John Bunyak, 303-969-2818)

Visibility Plan for the State of Washington: The State of Washington submitted its visibility protection plan to the EPA on January 10. The plan does not address NPS concerns regarding the Centralia power plant or other source subject to BART. Mount Rainier NP and the PWRO have requested the Air Resources Division's (ARD) assistance in moving a Reasonably Attributable Visibility Impairment certification forward for Centralia and potentially other BART facilities in the state. The ARD is working with the PWRO and the Solicitor's Office to coordinate this effort. (Contact: Pat Brewer, 303-969-2818)

GR-CESU Adds University of Memphis as New Partner: In January the Great Rivers CESU (GR-CESU) added the University of Memphis to its partnership. With the recent addition of Lewis & Clark College and the National Great Rivers Research & Education Center, the GR-CESU now includes 24 university partners. (Contact: Della Streaty-Wilhoit, 573-882-7023)

## **Accomplishments**

Rwanda Technical Assistance: Biological Resource Management Division (BRMD) staff provided technical expertise to Nyungwe National Park in Rwanda from January 7 to 22. Development Alternatives Inc. requested NPS assistance in its “Destination Nyungwe” effort that envisions Nyungwe National Park as “the number one birding destination in the Rift Valley.” The team conducted interviews with key stakeholders and assessed current birding opportunities and guide-training skills at the park. Additional objectives of the project included providing recommendations on improving park birding opportunities, developing a birdwatching management plan, and conducting a review of the trail network and signage. (Contact: Jennifer Lee, 202-513-7188; Kirsten Leong, 970-267-2191)

New Marine Invasives Database: A joint project of the Water Resources Division (WRD) and the BRMD, funded through the Youth Intern Program, has resulted in a new tool for managing marine invasive species in parks. More than 570 marine invasive species have been confirmed in parks across the country, with an additional 60 species posing a potential threat. A comprehensive database on marine invasive species has been developed and is now available on the NPS Intranet website at <http://www1.nrintra.nps.gov/wrd/marineinvasives/index.cfm>. A webinar to launch the website took place on January 25. The webinar was recorded and will soon be available internally for viewing. (Contacts: Eva DiDonato, 970-267-7291; Rita Beard, 970-267-2165)

Canaveral National Seashore Coastal Watershed Assessment: On January 31, the agreement for “An Assessment of Coastal Water Resources and Watershed Conditions in and Adjacent to Canaveral National Seashore” came to a close. The principal investigator and the writing team from the Florida Institute of Technology presented a webinar that described major findings in the report and changes made in response to comments submitted by the NPS review team. The park, regional office, and WASO participated in the webinar. This report will be published in the Natural Resource Report series. (Contact: Eva DiDonato, 970-267-7291)

Major Milestone Reached on Hawaii Volcanoes and Haleakala Air Tour Management Plans: Staff from the Natural Sounds and Night Skies Division (NSNSD), the Pacific West regional director, and the DOI solicitor’s office successfully negotiated an agreement with the FAA Pacific West Regional Office regarding Hawaii Volcanoes and Haleakala NP’s Air Tour Management Plan alternatives. The preliminary alternatives will be published, and the parks will hold public meetings to educate interested stakeholders. (Contact: Vicki McCusker, 970-267-2117).

## **Progress**

Climate Change Youth Initiative: Forty internship proposals were received for FY2011, and Climate Change Response Program (CCRP) staff selected 13 high-quality projects. The internships will be announced during the week of February 7, 2011. Qualified youth will be recruited by the program partner, the National Council for Science and the Environment, to fill these internships. In addition, a team of NPS technical experts and partner University of Washington will review and select research fellowship proposals in April 2011 and award \$5,000–\$20,000 per research project for climate change research. (Contact: Lisa Norby, 303-969-2318)

EPA Proposal for the Navajo Generating Station: In July 2011 the EPA expects to propose air emission controls for the Navajo Generating Station (third largest source of nitrogen oxide emissions in the

country) on the Navajo Nation. The National Park Service and several other DOI bureaus are participating in a stakeholder process, including two stakeholder meetings held in January, convened to address the complex tribal, economic, and water rights issues associated with the EPA's anticipated proposal. (Contact: John Bunyak, 303-969-2818; Pat Brewer, 303-969-2153)

Four Corners Power Plant: In November 2010 the EPA proposed air emissions controls for Four Corners Power Plant (largest source of nitrogen oxide emissions in the country), also on the Navajo Nation. In January ARD staff met with Arizona Public Service (APS) to discuss APS's alternative proposal for air emission controls. The EPA intends to request public comment on the APS alternative. The ARD is negotiating with APS and EPA on the details. (Contact: Pat Brewer, 303-969-2153)

Review of the Arctic I&M Network: The Inventory and Monitoring (IMD) chief led the three-year start-up review of the Arctic I&M Network in Fairbanks, Alaska, January 18–21. There was a consensus among the four review panel members and all of the superintendents, park natural resource chiefs, and other park staff and collaborators who attended the review or responded to the anonymous online survey that the network is off to a great start. The Arctic I&M Network has effectively integrated and leveraged the available resources of the five parks and the I&M Program (e.g., professional staff, funding, aircraft and other field logistical support), with the result that high-quality science and technical support are occurring despite the considerable challenges of conducting work in the Arctic. (Contact: Steve Fancy, 970-225-3571)

IMD Staff Re-designing Monitoring Databases for Channel Islands NP: Six IMD staff members met with park managers and staff at Channel Islands NP on January 10–13 to begin a major overhaul and modernization of the park's monitoring database system. The park has more than 20 years of data for a number of natural resource vital signs that are relevant to addressing rapid climate change. Each IMD staff member met with one to two Channel Island principal investigators to discuss their database, how they use it, how they get data in and out of it, what types of reports and summary tables and graphics they'd like the database to generate for routine reporting. Positive feedback indicated that WASO IMD staff members were providing assistance to park staff in managing their 20-year-old database systems. (Contact: Steve Fancy, 970-225-3571)

## **Reports and Publications**

Vulnerability Assessment Guide: "Scanning the Conservation Horizon: A Guide to Climate Change Vulnerability Assessment" was released to the public the week of January 16. This guidance document focuses on the key components of vulnerability—sensitivity and exposure—and reviews best practices for conducting assessments focusing on species, habitats, or ecosystems. The document is a product of an expert workgroup on climate change vulnerability assessment convened by the National Wildlife Federation in collaboration with the USFWS and other federal agencies, including the National Park Service. It is available at

<http://www.nwf.org/Global-Warming/Climate-Smart-Conservation/Safeguarding-Wildlife/Assessing-Vulnerability.aspx>. (Contact: John Gross, 970-267-2111)

Technical Review Process Published: A standardized process for reviewing data management infrastructure and procedures for the 32 I&M networks was distributed to network data and program managers in January. The process was developed by a 2010 workgroup of data managers. The reviews are voluntary and will result in identifying both areas of strength and those needing improvement at the individual network level and at a national, programmatic level as well. The review period is from January through the end of April. Information is posted on the I&M Network's SharePoint site at

<http://imnetsharepoint/DM/techrev/Technical%20Review%20Documents/Forms/AllItems.aspx>.  
(Contact: Margaret Beer, 970-267-2168)

First Two Acoustical Monitoring Reports Accepted in Natural Resources Technical Reports Series: The Natural Sounds Program had its first report accepted into the Natural Resource Technical Report series on January 31, 2011. The “Zion National Park: Acoustical monitoring summary report” presents acoustical monitoring data that were collected at Zion in 2000–2008. The report is available on the NR Info website at <https://nrinfo.nps.gov/Reference.mvc/Profile?Code=2167767>. In addition, NSNSD peer-reviewed another acoustical report for Bryce Canyon NP that was accepted February 1, 2011, into the NRTR series. The report is available at <https://nrinfo.nps.gov/Reference.mvc/Profile?Code=2167773>.  
(Contact: Katy Warner, 970-267-2107)

Natural Sounds Interpretive Handbook Completed: The NSNSD recently completed its interpretive handbook entitled “The Power of Sound.” This handbook was developed to provide interpreters with tools for developing programs that will connect visitors to park soundscapes and acoustic resources. The handbook acts as a reference for learning more about sound in NPS units and provides example programs that can be used or adapted to meet a park’s needs. The handbook is available for download at <http://www1.nrintra.nps.gov/naturalsounds/documents/InterpHandbook.pdf>. (Contact: Lelaina Marin, 970-225-3552)

“Acoustical Toolbox” Guides Published: The NSNSD recently published two guides to help park staff and visitors reduce their noise footprint. The first guide is intended for national park staff, contractors, and concessionaires. The “Acoustical Toolbox: Recommendations for Reducing Noise Impacts in National Parks” is available internally at [http://www1.nrintra.nps.gov/naturalsounds/documents/StaffAcousticToolbox\\_Final\\_ForWeb.pdf](http://www1.nrintra.nps.gov/naturalsounds/documents/StaffAcousticToolbox_Final_ForWeb.pdf). The guide provides noise specifications for a variety of transportation sources and maintenance/construction equipment commonly used in parks so that staff can select quiet technology to meet park needs while also reducing impacts on park soundscapes. The second guide, a smaller brochure intended for park visitors, is entitled “A National Park Guide: Protecting and Enhancing Soundscapes” and available at [http://www.nature.nps.gov/naturalsounds/PDF\\_docs/Guide\\_ProtectingEnhancingSoundscapes.pdf](http://www.nature.nps.gov/naturalsounds/PDF_docs/Guide_ProtectingEnhancingSoundscapes.pdf). The public guide provides educational information and tips so that visitors can reduce noise and better enjoy the unique soundscapes that parks offer. (Contact: Randy Stanley, 970-267-2194)

## **Presentations, Conferences, and Workshops**

NASA Expert Panel Review at Biosphere2: The IMD ecologist participated in an expert panel review for a NASA project that is developing a new vegetation index and associated phenology products. Key goals of the products were: (1) to span sensor changes, thereby providing a complete and consistent record from 1981 to the present; (2) to better address highly vegetated ecosystems where NDVI (Normalized Difference Vegetation Index, or an index to chlorophyll content) 'saturates' (e.g., forests); and (3) to develop easy-to-use and consistent land surface phenology measures that promote consistency and ability to compare metrics. This project directly addresses high priority monitoring needs identified by I&M networks, LCCs, EPA, and the National Climate Assessment. NASA is including end users early, when users can still easily affect long-term decisions on data algorithms, product formats, and delivery mechanisms. This is year two in a five-year project, and current plans are to retain the review panel throughout the project. The review was conducted January 4–5 at Biosphere2 in Oracle, Arizona.  
(Contact: John Gross, 970-267-2111)

Vulnerability Assessment Workshop: The IMD ecologist participated in the National Climate

Assessment Vulnerability Assessment Workshop in Atlanta, Georgia, on January 19–20. The workshop addressed the objectives, scope, framework for, components, and process for vulnerability assessments that might be included in the next national assessment, which is to be completed in 2013. (Contact: John Gross, 970-267-2111)

Lessons Learned Workshop: IMD staff attended a BLM-sponsored workshop in Denver on January 31–February 1 to discuss lessons learned in landscape scale assessment and planning processes. The I&M Program has contributed a large amount of geo-spatial data and analysis scripts and procedures to the BLM as part of the NPScape project. The BLM workshop was planned as a conversation with a variety of federal and state agencies, universities, and non-governmental organizations to share information derived from past experiences and to contribute to the existing body of knowledge about landscape-scale processes. (Contact: Bill Monahan, 970-267-2196)

Statistical Workshop at Great Smoky Mountains NP: IMD and USGS staff led a workshop on sampling designs at Great Smoky Mountains NP January 31–February 4 to assist the park in improving their vital signs monitoring efforts. On the first day they presented the principles of sampling design, long-term monitoring of natural resources, and sampling designs appropriate for monitoring various resources. The rest of the week was spent working in small groups to develop sampling and to review designs for each cluster of vital signs. Scientists from the Appalachian Highlands I&M Network were also involved. (Contact: Tom Philippi, 619-523-4562)

MARINe presentation on Tidepool Monitoring: Cabrillo NM staff presented the results of a collaborative effort between the park and IMD staff on the analysis of 20 years of tidepool monitoring at Cabrillo NM at the annual meeting of the Multi-Agency Rocky Intertidal Network (MARINe) consortium in Santa Barbara, California, on January 28. Five I&M networks along the Pacific Coast from Southern California to Alaska are collaborators with the interagency MARINe effort for intertidal monitoring. (Contact: Tom Philippi, 619-523-4562)

Interagency Working Group on Ocean and Coastal Mapping: Representatives from the WRD and the Lands Resources Division represented the National Park Service at a two-day workshop of the Interagency Working Group on Ocean and Coastal Mapping (IWG-OCM) of the Subcommittee on Ocean Science and Technology (SOST). The workshop was hosted by the National Geophysical Data Center in Boulder, Colorado. The participants reviewed the requirements for a national inventory of ocean and coastal mapping (OCM); discussed the holdings, capabilities, and roles of the primary federal OCM repositories; and identified next steps to developing an integrated, publically accessible national OCM inventory. (Contact: Jeff Cross, 970-225-3547)

National Climate Assessment Interagency Task Force: The CCRP manager began participation in the US Global Change Research Program's National Climate Assessment Interagency Task Force (INCA) meeting. The INCA is working to develop an updated National Climate Assessment report, intended to integrate, evaluate, and interpret the findings of the US Global Change Research Program and discuss the scientific uncertainties associated with such findings; analyze the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; analyze current human-induced and natural trends in global change; and project major trends for the subsequent 25 to 100 years. The upcoming assessment will focus on evaluating the nation's progress in adaptation and mitigation; building a long-term, consistent process for evaluation of climate related risks and opportunities; providing information that supports decision making processes within regions and sectors of the US; and evaluating the current state of scientific knowledge relative to climate impacts and trends. Participation in the INCA meetings and workshops will be an ongoing activity, occurring bi-weekly. CCRP will

provide updates as the group's work progresses. (Contact: Leigh Welling, 970-225-3513)

USFS Applied Science Research Presentation: CCRP climate change scientist Patrick Gonzalez gave a presentation on collaborative National Park Service–Forest Service climate change science applied research, by invitation of the USFS, at their monthly meeting on January 12 in Washington, D.C. (Contact: Patrick Gonzalez, 202-513-7185)

Climate Friendly Parks Workshops: Wolf Trap Farm National Park for the Performing Arts hosted its second Climate Friendly Parks workshop on January 25. Their first workshop was in 2008 and was sponsored by the Wolf Trap Foundation. The park is one of the first parks to do a second greenhouse gas inventory. National Capital Parks East hosted a Climate Friendly Parks workshop on January 18–19 in Washington, D.C. (Contact: Julie Thomas McNamee, 202-513-7182)

University of Arizona Resource Management Meeting: CCRP staff helped lead a meeting entitled "Potential opportunities to apply climate change research to resource management in National Parks and wider landscapes" in Tucson, Arizona. They organized the meeting with the leader of the DOI Southwest Climate Science Center, based at the university. Together with colleagues from the university, USGS, and other partners, the group worked to identify specific areas of collaboration for developing and applying climate change research to the adaptation of resource management. Patrick Gonzalez also gave a talk to the Institute of the Environment on his published research regarding "Global Vulnerability of Ecosystems to Vegetation Shifts Due to Climate Change." Contact: Leigh Welling, 970-225-3513; Patrick Gonzalez, 202-513-7185)

## **Training Offered**

NRInfo Portal Sessions in Denver: On January 18, IMD staff conducted two training sessions at Academy Place on the Natural Resource Information Portal. The purpose of the sessions was to give an overview of the portal, showcase some of its functions, answer questions, and solicit feedback and ideas. Both sessions included a general overview of the portal; how to search for and retrieve park species information; how to search for natural resource-related reports, documents, publications, data sets, and geospatial data; and how to upload and manage information into the portal. (Contact: Margaret Beer, 970-267-2168)

Climate Change Webinar: CCRP staff presented an overview of the Climate Change Response Program, its ongoing projects, and 2010 accomplishments as part of the monthly Climate Change in National Parks webinar series. (Contact: Angie Richman, 970-267-2136)

## **Staff News**

Jerry Mitchell Retires: Jerry Mitchell, BRMD chief since 2006, retired on February 1 after 36 years of service. Jerry started with the National Park Service at Zion and went on to work at Grand Canyon and Yosemite. His career pulled him in many directions, from building resource management programs to managing research to planning to partnerships with universities, NGOs, and philanthropy, and lastly, to managing BRMD. Jerry and his wife Cassy will remain in Colorado and enjoy time with their daughter Hanna. Jerry will remain engaged with the National Park Service on a few select projects. He can be reached at [jmmcam03@hotmail.com](mailto:jmmcam03@hotmail.com).

Peter Dratch Accepts USFWS Position: Dr. Peter Dratch has accepted a position with the USFWS as the

supervisory biologist of the newly created Inventory and Monitoring Program for the National Wildlife Refuge System. His new office is on the third floor of the NRPC building in Fort Collins, co-located with the NPS I&M Program. Peter started with the BRMD in 2001 and has been the Endangered Species Program Manager since 2004. Peter worked for USFWS previously, as one of the scientists who started the National Fish and Wildlife Forensics Laboratory.

National Fish, Wildlife and Plants Climate Change Adaptation Strategy: Cat Hawkins Hoffman was nominated to represent the National Park Service on the steering committee for the National Fish, Wildlife and Plants Climate Adaptation Strategy and attended the first steering committee meeting on January 13 in Washington, D.C. The committee will lead the DOI and Council on Environmental Quality in development of a national climate adaptation strategy by 2012. (Contact: Cat Hawkins Hoffman, 970-225-3567)

Sounds Program Invited to Participate in Federal Workshops to Manage Ocean Noise Impacts: Kurt Frstrup, scientist with the NSNSD, has been invited to participate in a series of workshops with the National Oceanic and Atmospheric Administration and National Marine Fisheries Service that are designed to provide new tools for federal agencies to manage ocean noise impacts. The culmination of this effort will be mapping products that document ocean noise budgets and measures of cumulative exposure that can be used to evaluate potential impacts. Two meetings are planned for 2011, with a small working group of 10–15 experts. (Contact: Kurt Frstrup, 970-267-2102)