



David W Reynolds

06/23/2006 02:43 PM  
EDT

Subject: Fw: AD for Natural Resources Stewardship and Science- WASO  
Monthly Report - May 2006

Here's the WASO monthly report from the Associate Director, Natural Resources and Science. I inserted blue highlighted information in some instances to describe the Northeast Region's actions in those areas.

Dave

David W. Reynolds  
Chief, Natural Resources and Science  
Northeast Region - NPS  
200 Chestnut Street  
Philadelphia, PA 19106



Subject: AD-NRSS Monthly Report - May 2006

**Associate Director  
Natural Resource Stewardship and Science  
Monthly Report--May 2006**

**New Developments/Heads Up**

First NNL in Over 18 Years -- On May 9, 2006, Acting Interior Secretary Lynn Scarlett designated Ashfall Fossil Beds, Antelope County, Nebraska, as a National Natural Landmark (NNL). This is the first NNL designated in over 18 years. The thick bed of volcanic ash at this site contains hundreds of complete skeletons of extinct rhinos, camels, three-toed horses, and other vertebrates lying in their death poses in an ancient waterhole. The site became a Nebraska State Historical Park in June 1991. The Acting Secretary also dedesignated 8 NNLs and approved boundary adjustments for 66 others. For more information about the Ashfall site, or to see the Secretary's press release, go to [[www.ashfall.unl.edu](http://www.ashfall.unl.edu)]. For more information about the NNL Program, contact the NNL Regional Coordinators [under "contacts," [www.nature.nps.gov/nnl](http://www.nature.nps.gov/nnl)] or Margi Brooks, NNL Program Manager, 520-670-6501 ext. 232.

Coral Bleaching Episode in U.S. Virgin Islands -- An increase in sea temperatures in 2005 led to the most severe coral bleaching episode ever recorded in the U.S. Virgin Islands. More than 90% of coral cover bleached at six long-term monitoring sites at Virgin Island NP and Buck Island Reef NM. This bleaching episode was followed immediately by a severe outbreak of coral disease that killed many colonies. Assessments revealed coral die-offs at a rate greater than 48% loss of live coral cover at Tektite Reef and more than 20% loss at Haulover Reef. Of the over 460 elkhorn (*Acropora palmata*, federally endangered) colonies being monitored in Virgin Islands NP, about 45% bleached, 13% died partially, and 8% died completely. On May 3rd, Director Fran P. Mainella presented STAR awards to Jeff Miller and Rob Waara of the South Florida/Caribbean Inventory and Monitoring Network Program for their work in documenting this event. This episode highlights the value of rigorous monitoring programs. Cliff McCreedy, Marine Resource Program Leader, Water Resources Division.

Natural Resource Year in Review--2005 Published -- This now-familiar annual publication of the Natural Resource Program Center summarizes the application of science to natural resource management in the National Park System for 2005. Articles are succinct and analytical, including management issues such as (1) battling nonnative species and diseases, (2) integration of science for resource management and planning, (3) the role of national parks as laboratories and frontiers for knowledge, (4) science education, outreach, and citizen involvement, (5) ecological restoration, (6) and leaders in natural resource management. It also features reports from a variety of natural resource management programs. Print copies are available from the editor, Jeff

Selleck (jeff\_selleck@nps.gov). The new 2005 edition, as well as past issues dating to 1996, can be located at [[www.nature.nps.gov/YearInReview](http://www.nature.nps.gov/YearInReview)].

Coordination between NASA/NPS/Arizona State University/University of Colorado, Denver --

On May 15-16, the NRPC Office of Education & Outreach, Views Team and Geologic Resources Division met with NASA education specialists in Denver to develop a detailed plan and time-line for a Views Module on Grand Canyon's geology. NPS participants included Bruce Nash and Dave Krueger (NPS Views), Judy Chetwin (Intermountain Region), Bob Higgins (GRD), Jacob Fillion (Grand Canyon NP), and Mike Whatley (OEO). Non-NPS attendees included Mike Marlow, Kristen Lucke and Deb Thomas (University of Colorado, Denver), Brian Grigsby (NASA/Arizona State University), and Anita Davis, Anita Sohus, Michelle Viotti and Christine Johnson (NASA). Among the exciting possibilities of this partnership are the potential development of public outreach programs that would compare geologic features on Mars and Earth, with special focus on the two planets' "grand" canyons, or other such features in the solar system. The project is funded and is scheduled to be completed in 2006. The partnership would rely heavily on the NRPC Views program, and would also benefit extensively from resources that NASA would be able to provide, including development and production of highly advanced and interactive animations, the potential of obtaining promotional interviews with astronauts, and many other exciting possibilities. Several other topics were discussed: a servicewide interpretive workshop that would involve NASA, and development of a science competency module for the NPS interpretive program.

Ocean Research Priorities Plan -- The White House Council on Environmental Quality began development of a National Ocean Research Priorities Plan, in response to the President's U.S. Ocean Action Plan, with a public workshop April 18-20 in Denver. The research plan will present a vision for US ocean science and technology, describe the challenges to be addressed, identify key themes, specify goals for each theme and a time frame for their achievement, and address implications for the use or prioritization of resources. NPS Geologic and Water Resources professionals facilitated the breakout session on Sustaining Natural Resources. ADNRS also compiled and submitted NPS comments on the plan from parks and regions to assure that ocean park needs are addressed. NPS Geologic Resources professionals served as editors to incorporate comments from all sources in the final draft. Further information is available at: [http://ocean.ceq.gov/about/jsost\\_workshop/welcome.html](http://ocean.ceq.gov/about/jsost_workshop/welcome.html) (The Northeast Region is developing an Ocean Stewardship Implementation Plan. Barry Sullivan, General Superintendent, Gateway NRA, is the chair of the Committee developing the plan.)

Release of Invasive Species Video -- *Invaders of the National Parks*, a broadcast quality video produced by Montana State University on invasive species, is now ready for distribution. The highly proficient graduate student in environmental filmmaking at Montana State University, Liz Smith, who spearheaded this project, believes the film could be entered into some competitive film review festivals. Meanwhile, BRMD project coordinator Linda Drees, and OEO coordinator Mike Whatley, plan to distribute the DVD to parks, offices, programs, and other interested parties. The 22 minute presentation addresses the national need for a coordinated NPS invasive species program, and capitalizes on footage taken at Arches NP during a joint EPMT training. The video's cover jacket says: "Invaders are taking over our natural areas! Exotic plants now

threaten millions of acres in our national parklands. Join teams of Park Service "weed warriors" who take on the task of eradicating unwelcome salt cedars (aka tamarisk) and other harmful plants from our precious protected landscapes. Learn what you can do to help this national effort!" For more information, contact Mike Whatley, Office of Education and Outreach (970) 225-3541.

NPS Hurricane Resource Advisor Workshop -- The NPS Southeast Region's Office of Natural Resources and Science is hosting a workshop in June in Savannah, GA, to train up to 30 natural and cultural resource professionals on post-hurricane response issues in parks, including NPS national emergency response policy, the incident command system, resource advisors' roles and responsibilities, typical resource impacts, health and safety, critical incident stress management, information management and documentation. Trained NPS natural and cultural resource professionals are needed for dispatch to parks immediately after hurricane landfall to assist the Incident Command Team in assessing resource conditions, impact mitigation, and critical information needs. Workshop support is provided by the Geologic Resources Division, Environmental Quality Division, Law Enforcement and Emergency Services Division, Everglades National Park, NPS Burned Area Emergency Rehabilitation Team, and National Capital Region Museum Resource Center. At least 5 cultural resources staff will participate in the workshop. (James Akerson, SHEN and Mid-Atlantic Exotic Plant Mgt. Team Coordinator and Courtney Schuppe, Coastal Geologist, were the Northeast Region participants who attended the workshop.)

NPS Hosts USGS-NASA Coastal and Marine Lidar Meeting -- The Geologic Resources Division hosted a meeting in Lakewood, CO, May 31 - June 1, to discuss Lidar (Light Detection and Ranging) mapping and monitoring activities in coastal and marine parks. USGS scientists and the USGS Coastal and Marine Geology program coordinator discussed USGS/NASA Lidar collection, processing, and product delivery plans. NPS participants included staff from the Geologic and Water Resources Divisions, the Inventory & Monitoring program, and the Office of the Chief Information Officer. NPS staff participated in a seminar and training session on GoogleEarth software. Action items include a marine mapping briefing statement, WASO contacts for Lidar data archiving and processing, and greater coordination with USGS on needs for Lidar data and products.

Waterton-Glacier Science & History Conference-- Scientists conducting research at Waterton-Glacier International Peace Park will present their latest results at the 3rd annual Waterton-Glacier Science & History Conference. This year's event will be held at the Bay Shore Inn, Waterton townsite, Alberta, Thursday, July 27, 2006, from 8:30 a.m. to 4:30 p.m. Topics range from pine beetles, to oral histories of Chief Mountain, to visitor use patterns, to wolf, black swift, bull trout and bighorn sheep studies. For more information contact Crown of the Continent Research Learning Center, 406-888-5827.

Research Minigrants for San Francisco Bay Area National Parks: The Pacific Coast Science and Learning Center, Point Reyes NS, announces MINIGRANTS FOR RESEARCH IN SAN FRANCISCO BAY AREA NATIONAL PARKS. Four grants of up to \$2000 each, for either natural or social sciences, will be awarded with a portion of the funds dedicated to hiring and

training a high school intern to work one-on-one with the researcher. Application deadline is June 26, 2006. The application materials, park research priorities and more information can be found at: <http://www.nps.gov/pore/science.htm>

## **Accomplishments**

### Mojave NP Abandoned Mine Lands/Disturbed Land Inventory and Restoration

Recommendations -- Mojave NP requested assistance from the Geologic Resources Division with its disturbed land inventory and the development of conceptual restoration actions at a number of abandoned mines and other disturbed land sites. The preserve has more than 450 mine sites, garbage dumps, ranch sites, spring developments, major and minor pipelines, roads, trails, railroads, stock ponds, millsites, and other facilities. GRD staff and the preserve geologist visited 15 sites including recent and historic mine sites; a communications cable route; spring developments, and ranch sites. GRD staff will provide the preserve with a framework to develop their disturbed lands program.

### Geologic Resources Division Reviews Geotechnical Report for Water Intake at Glen Canyon

NRA -- Glen Canyon NRA requested review of a design study for a city of Page water intake, which would be on a cliffside above Lake Powell, adjacent to Glen Canyon Dam. The design study included a brief summary of field work, core photographs, geologic logs and a site inspection for surface expressions of rock jointing. GRD staff reviewed the report and submitted comments and recommendations to the park.

New Water Resources Foundation Report -- A Water Resources Foundation Report has been completed by Effigy Mounds NM, with help from the NPS Water Resources Division and Denver Service Center staff. The report will serve as a reference during development of the park's General Management Plan. This is the second water resources report produced in this new format, following guidance from the 2004 Park Planning Program Standards. For a copy of this report, contact Don Weeks, Hydrologist, at 303-987-6640.

Interdisciplinary Research Workshop: The California Mediterranean Research Learning Center (CMRLC) and Channel Islands NP cosponsored a workshop with California State University, Channel Islands, at the University of California, Santa Barbara's Santa Cruz Island Reserve Field Station, May 21- 22. Twenty-one workshop participants planned research projects which would incorporate and consider NPS research needs. The Channel Islands Interdisciplinary Research Institute brings together scientists from California State University, Channel Islands, the NPS, and other academic institutions to collaboratively study the valuable resources in the Channel Islands and the Santa Monica Mountains. The CMRLC will provide assistance in the implementation of proposed research, group workshops, developing scientific studies, expand learning opportunities, and logistical support.

NatureFest at Congaree NP--The 10<sup>th</sup> annual NatureFest was held April 28-30 at Congaree NP, a three day celebration of springtime which also served to commemorate National Park Week and Earth Day. Twenty-four researchers currently conducting studies at Congaree presented their findings to the more than 600 visitors that attended this year's event. The researchers conducted



indoor and outdoor presentations, led nature walks, and provided field demonstrations (e.g., talks on bats and butterflies; nature hikes on rare plants, floodplain forests, and spiders; and exhibit tables focusing on amphibians, crayfish, and geology). Over half of the presenters were actively conducting research through the park's Old-Growth Bottomland Forest Research and Education Center.

Sudden Wetland Dieback Workshop --On May 24, Cape Cod NS hosted the 2nd Annual Sudden Wetland Dieback Workshop. Funding and assistance was provided by the Massachusetts Audubon Society, U.S. Fish and Wildlife Service, and Connecticut Department of Environmental Protection. Workshop objectives were to 1) introduce a wider audience to the issue of sudden dieback in salt marshes of New England (particularly around Cape Cod), 2) obtain an update from New England states on recent observations and research efforts, 3) learn about the latest research from other regions of the country where dieback has occurred, 4) visit affected sites on Cape Cod for first hand observations, and 5) recommend next steps. After a morning of presentations by Drs. Irv Mendelssohn (Louisiana State University), Merryl Alber (University of Georgia), Ray Schneider (Louisiana State University), and Wade Elmer (Connecticut Agricultural Experiment Station), the group explored a dieback area in a nearby salt marsh (Wellfleet).

International Assistance, Republic of Georgia, April 23 - May 6 -- Jonathan Smith (USGS) and Peter Budde (NPS), representing the DOI's International Technical Assistance Program, traveled to Tbilisi to conduct an initial GIS needs assessment for USAID and Georgia's Ministry of Environment Protection and Natural Resources. Over the course of two weeks, Jonathan and Peter conducted over 25 interviews with representatives from the Ministry, private GIS consulting organizations, and NGOs. Interview goals were to determine the GIS capabilities in the Ministry and understand their GIS needs, in order to make initial recommendations about future GIS support options. The team traveled to Lagodehki Nature Reserve and Managed Reserve, Georgia's oldest unit in their Protected Areas System. This field visit provided more insight into park infrastructure and capabilities. A briefing was provided to the United States Embassy personnel and to the Deputy Minister. A cumulative summary of their meetings and recommendations will be delivered in several weeks.

Mexican Biologist Assists Park Flight at Sequoia/Kings Canyon -- Humberto Bustos Santana from Mexico will start a four-month international internship for the Park Flight Migratory Bird Program at Sequoia/Kings Canyon National Parks beginning in May. He will team up with an NPS biological technician to run MAPS bird banding stations, conduct Breeding Bird Survey routes, and monitor Peregrine Falcons. Humberto will then work with an NPS environmental education specialist to provide bilingual interpretive bird walks and campfire programs to the public, present Mexican community outreach programs in the San Joachin Valley, and give a presentation to park staff on bird conservation efforts in Mexico. Humberto has participated in conservation and environmental education projects in several protected areas in Mexico, including the Sierra Manantlan Biosphere Reserve in Jalisco and the Alamitos Reserve in Aguascalientes. This technical exchange was facilitated through the International Volunteers in Parks program, coordinated by the NPS Office of International Affairs.

Argentina Protected Area Receives Park Flight Technical Assistance -- Jim Bacon, Outdoor Recreation Program Manager, Yosemite NP, provided visitor use and protected area management expertise to Argentina in May as part of the Park Flight Migratory Bird Program. Jim's task was to develop a written plan and recommendations to integrate visitor use and conservation at Punta Rasa Natural Reserve on Samborombon Bay in the state of Buenos Aires. The Punta Rasa is an "Internationally Important Wetland" under the Ramsar Convention, and is part of a protected area used by over 100,000 migratory shorebirds. This assistance looked at the potential for increasing visitation without diminishing the area's value in protecting biodiversity. The effort is in partnership with in-country partner Fundación Vida Silvestre Argentina (FVSA), and is a follow-up to the Park Flight project with FVSA at Punta Rasa from 2003-2005. Travel costs were covered by Park Flight partner American Airlines through the National Park Foundation.

Carlsbad Caverns, NM -- Carlsbad Caverns received a cash settlement under the Park System Resource Protection Act (section 19jj) from XCEL Energy Corp. for a trespass tree cutting incident.

## **Progress**

Coordination on USGS Science -- NPS convened a meeting of DOI land management bureau science advisors about the involvement of USGS on science issues. Topics of discussion included facility charges that the USGS Biological Resource Discipline plans to levy on projects beginning in FY 2007, USGS efforts to encourage a national monitoring partnership, discussion of CESU coordination among the bureaus, problems created by how the new Departmental Manual treats cooperative agreements, the status of the forthcoming Research Grade Evaluation Guide, and Departmental guidance on peer review (John Dennis).

National Vegetation Classification Standard -- NRSS staff participated in a 2½ day meeting of the Vegetation Subcommittee, Federal Geographic Data Committee (FGDC), to continue development of Version 2 of the National Vegetation Classification Standard. As a first step in soliciting public review, Subcommittee members plan to circulate a draft of Version 2 to the agencies for comment by late summer, and then give the result to the FGDC Standards Working Group before the end of 2006. Version 2 integrates physiognomic and floristic classification approaches into a single, hierarchical system (John Dennis).

Prototype Resource Stewardship Strategy -- Internal review of the draft Resource Stewardship Strategy (RSS) for Herbert-Hoover NHS should be completed in June 2006. While the role and function of these plans differ, the RSS is the successor to the NPS Resource Management Plan. Initiated by the Midwest Regional Office in advance of finalizing DO 2.1, the Herbert Hoover prototype has allowed this new planning concept to move beyond the conceptual phase. A draft RSS handbook is also underway and should also be available in June. The draft handbook, together with the pending experiences in preparing pilot RSSs, should serve as the basis for a DO 2.1 reference manual (Gary Mason).

NEPA Trainings -- In May, the NPS Midwest and Northeast Regions, and the Environmental Quality Division, sponsored two National Environmental Policy Act (NEPA)/Director's Order 12

training sessions: one at Dayton Aviation National Historical Park, Ohio, and the second at the National Conservation Training Center, West Virginia. Staff from these parks and other cooperating agencies (e.g., Federal Highway Administration) participated.

Saratoga National Historic Park -- Environmental Response, Damage Assessment and Restoration (ERDAR) held a meeting with the staff of Saratoga NHP to discuss the Hudson River PCB Superfund Site. Also in attendance were representatives of the Environmental Protection Agency (EPA), New York Department of Environmental Protection and NY State Historical Preservation Office. The result of the meeting is that NPS will attempt to craft an Interagency Agreement (IAG) between DOI/NPS and EPA to allow for the transfer of funds to perform remedial investigation and study of natural, cultural resources and human health risks on NPS lands and manage the process of these investigations, including oversight and issuance of sampling permits. The IAG should be presented to EPA this summer

University of Calgary to Join CESU Network -- The University of Calgary has been approved for membership in the Rocky Mountains Cooperative Ecosystem Studies Unit. Once the paperwork is signed, NPS will be able to work on cooperative projects with this Canadian University. For information on the capabilities of the faculty and institutes at the University of Calgary, see their application package at [<http://www.forestry.umt.edu/research/cesu/NEWCESU/Postings/default.htm#Activities>] To complete a task agreement with the University of Calgary, contact Kathy Tonnessen, Research Coordinator, at [kathy\\_tonnessen@nps.gov](mailto:kathy_tonnessen@nps.gov).

CESU Native American Student Intern Collaboration -- The Rocky Mountains CESU, the University of Colorado, Denver, and the NPS Intermountain Region are collaborating on a Native American student internship program, "Place and Native Voice." In 2006, the program is placing three students in Rocky Mountain NP and Bent's Old Fort NHS for summer assignments focused on the interpretation of the sites' natural and cultural resources from a Native American perspective. The project is being funded by the Rocky Mountains CESU and the NPS Intermountain Regional Office.

Rocky Mountains CESU To Send Tehabi Interns to Parks -- NPS staff from the Rocky Mountains CESU attended a training of the Tehabi interns at Grant-Kohrs Ranch NHS. They presented information to the graduate and undergraduates on employment opportunities in NPS. These students receive group training and then will be traveling to assignments at Grant Kohrs Ranch NHS, Glen Canyon NRA, and Bighorn Canyon NRA. The internship program is organized by Utah State University.

Prototype Fungal Foray Website: The Pacific Coast Science and Learning Center, Point Reyes NS, announces their PROTOTYPE FUNGAL FORAY WEBSITE. The site accounts for all the macrofungi found at the Seashore (340+ species so far with over 220 not previously recorded in the park). Over 200 volunteers and many academics have helped survey and catalog the fungi. Website at [<http://www.mykoweb.com/PtReyes>].

## **Professional Meetings/Papers**



7th Federal Fossil Conference -- Geologic Resources Division staff participated in the 7th Federal Fossil Conference, held in Albuquerque, May 22-24. The conference included about 100 attendees from many federal and state agencies, and a number of partner organizations, institutions, and museums. Many of the talks and posters pertained to NPS fossils. With the 100th anniversary of the Antiquities Act (June 8, 1906) this year, the contribution of the Act to management of paleontological resources on federal lands was an overarching conference theme. GRD staff presented a paper on NPS paleontological resources found in cultural resource contexts, reinforcing the idea that “objects of antiquity” include both fossil and cultural resources, and many resources that blur the distinction between the two. GRD staff also coordinated submissions for the conference proceedings volume (published as a New Mexico Museum of Nature and Science bulletin) and helped edit the volume, now available in printed and PDF form. The next federal fossil conference will be held in St. George, Utah, tentatively scheduled for mid-April, 2008.

Shoreline Change Conference II Talk -- Geologic Resources Division staff presented a talk on “Adapting to Shoreline Changes in the National Park Service” at the Shoreline Change Conference II, Charleston, SC, May 4. The talk focused on the history of measures used in a variety of parks to respond to shoreline changes including sand fencing, sand bags, shore-perpendicular walls (groins), beach nourishment, relocation, and sustainably designed facilities. The conference was attended by 75 invited participants from federal and state governments, academia, and the private sector.

Water Quality Monitoring Conference -- Roy Irwin, Kristen Keteles, Pete Penoyer, Gary Rosenlieb, and Dean Tucker, Water Resources Division, and Brannon Ketcham, Pacific West Region, gave presentations at the 5th National Water Quality Monitoring Conference sponsored by the National Water Quality Monitoring Council (NWQMC). NWQMC provides a national forum to promote consistent and scientifically defensible methods and strategies to improve water quality monitoring, assessment, and reporting. It also promotes partnerships to foster collaboration, advance the science, and improve management within all elements of the water quality monitoring community. Conference proceedings can be viewed at: [http://www.nature.nps.gov/water/VitalSigns\\_index/VitalSignsnews.cfm](http://www.nature.nps.gov/water/VitalSigns_index/VitalSignsnews.cfm). Gary Rosenlieb, Water Quality Program Team Leader, Water Resources Division.

High Ozone Levels at Great Smoky Mountains and Mammoth Cave NPs -- Dr. John Ray, NPS Air Resources Division, co-authored a recently published article in the *International Journal of Global Environmental Issues* about 13-years of observing high levels of ozone at Great Smoky Mountains and Mammoth Cave NPs. The study documented a long-term increase in the air pollutant ozone at both parks. The later half period (1996-2002) experienced more than three times the number of exceedances of the ozone National Ambient Air Quality Standard at both parks when compared to the first period (1990-1995). This ozone standard, if attained, is designed to protect human health.

## **Staff News**

David Plume To Join the Geologic Resources Division in July -- David Plume, a geologist with extensive GIS expertise, will begin a term appointment with the division on July 17. David will help the division's Geologic Resource Evaluation Team provide digitized park geologic maps to park managers as part of the geologic inventory effort being carried out under the Natural Resource Challenge. David has been working as a private consultant on a variety of GIS needs for federal agencies. He also has been employed by the BLM as a geologist and GIS analyst, and by the USGS as a geologic field assistant.

Pete Biggam Honored By National Cooperation Soil Survey -- Pete Biggam, a soil scientist in the Geologic Resources Division, received a national award from the National Cooperation Soil Survey for his "dedication to and support of soil survey mapping on National Park Service lands as well as advancing new technology in soils investigation." Pete heads the NPS soil inventory effort under the Natural Resource Challenge, and provides technical assistance to parks on numerous soil resource issues. Pete works extensively with the National Cooperation Soil Survey, which is a nationwide partnership of federal, regional, state and local agencies and institutions dedicated to advancing understanding of soils and soil survey work throughout the country.

David Jacob Moves On -- The Environmental Quality Division said farewell to David Jacob. David has been an Environmental Protection Specialist in Denver for the past 4 years and is moving into private law practice.

Dan Hamson Recuperating -- Dan Hamson, Chief, Environmental Response, Damage Assessment and Response Branch, EQD, took a fall off a ladder at his home. He will be out for a few months for rehabilitation. While he suffered dislocations of his left knee and shoulder and a broken tibia, he is now on the mend.