

# Earth, Wind, & Water

**NRPC** Newsletter

Winter, 2009

# Transitions: NPS natural resource leadership coalesce around major areas of emphasis





Ocean and coastal resources and habitat conversion and fragmentation are two of the emerging issues identified by the Natural Resource Stewardship and Science Directorate and the Natural Resource Advisory Group. Left: Channel Island kelp forest and diver. Right: Antelope.

Two thousand eight was a year of transitions for the United States and the Natural Resource Stewardship and Science Directorate (NRSS). The American people elected Barack Obama to the presidency and he in turn appointed Ken Salazar, Senator from Colorado, as the incoming Secretary of the Interior. In the National Park Service, Dr. Herbert (Bert)C. Frost became the new Associate Director for Natural Resource Stewardship and Science (NRSS).

Changes have also occurred in the public's perception of environmental challenges facing the nation. Climate change emerged as a national topic of discussion along with the need for a multifaceted approach for addressing the nation's energy appetite.

With the election of the 44th president comes a new perspective on these and other issues of concern to the NRSS (see <a href="http://www.barackobama.com/pdf/issues/EnvironmentFactSheet.pdf">http://www.barackobama.com/pdf/issues/EnvironmentFactSheet.pdf</a>).

As the new administration begins developing its strategies and policies, the National Park Service has an opportunity to champion initiatives that protect and restore our nation's natural and cultural heritage as embodied in units of the National Park System.

Issues in Search of Opportunities
Last August, the NRSS began a strategic
planning process that coincided with Bert's
new leadership role. With the upcoming

Peter Dratch receives DOI Superior Service Award



Peter Dratch, BRMD with Kaush Arha, DOI Deputy Assistant Secretary for Fish, Wildlife and Parks.

Peter Dratch, NPS-WASO Threatened and Endangered Species
Program Manager, has been instrumental in the drafting and implementation of the Department of
Interior (DOI) Bison Conservation
Initiative. Peter has performed in an
exceptional manner and achieved the
cooperative drafting of the Department of Interior Continued on page 6

Continued on page 3

## Director's Corner

This is an exciting time in the NRPC. The past few weeks have been a whirlwind of activity as we prepare for the new administration. I am optimistic about working with the new team at DOI as we take advantage of opportunities like helping to formulate economic stimulus activities. We don't know how that one will work out but it will undoubtedly be a wild ride that could greatly benefit parks' natural resources and will involve many of us in the NRPC.

Inside NRSS and NRPC we have new wave of leadership coming in place. Bert Frost is getting comfortable with his new position as Associate Director and Beth Johnson will be a great addition as Deputy. I have known Beth for quite a while and we can all look forward to working with her. In addition, new leadership is helping us develop our approach to emerging issues like climate change and the protection of ocean and coastal resources as well as enhance our bread and butter activities in geologic resources, fisheries, environmental quality, damage assessment, and restoration.

All these changes are somewhat bittersweet. Over the last year, we have lost a great deal of institutional knowledge and experience as dedicated employees retire. It will require our best efforts to continue moving forward. Our strength will be in working together to tackle the many cross-cutting issues we face.

With change comes uncertainty. We are all concerned over the state of the economy and the effect it may have on our budgets and programs. My crystal ball doesn't work so well anymore. As my old boss, Regional Director Bob Barbee used to say, "We need to develop a zest for ambiguity." I am sure that there will be no shortage of challenges ahead but I am quite optimistic about our ability to work together to make the nation a better place.

George Dickison, Center Director

### Life Outside the NRPC

## Who has preformed in over 20 different productions of the ballet. The Nutcracker?

In 1979, while pondering a need for diversion from academics, I enrolled in a Modern Dance class at Colorado State University on a whim. Who knew this would start an adventure that would last nearly 30 years?

My last estimate shows that I have performed in more than 100 separate dance productions, primarily with Canyon Concert Ballet (CCB) located in Fort Collins. This includes approximately 24 different Nutcracker ballet productions, which many companies perform annually during the winter holiday season and whose score is inescapable at the shopping malls this time of year. I have also performed with CCB and several other dance companies all along Colorado's Front Range and in Wyoming and Arizona.

During my career, I have been very fortunate to work with renowned artists from all over the world. Although hard to choose, my favorite dance production was an original work set to the cartoons of Jules Feiffer, the Pulitzer Prize winning cartoonist for the Village Voice and other publications. Mr. Feiffer performed with CCB during the premier.

While the performing aspect of dance is a blast, it is the people involved that make it special. One of these special people is my wife Amy, whom I met at CCB over 14 years ago. We now have two children ages 7 and 10 who are also taking dance classes. I really hope they have as much fun with it as I have.

Jeff Hughes, Hydrologist Water Rights Branch, Water Resources Division



Jeff as the Nutcracker Prince long ago



Jeff dancing in a Modern Dance piece by Judy Bejarano.

#### **Next Issue's Mystery Person:**

Which NRPC employee was recently honored in Denver as a "Jewel of the Community"?





Jeff, Amy, Brannon and Sadie dressed to perform in the Nutcracker, 2007.

#### **Transitions**

Continued from page 1

election and a new Associate Director, it was an opportune time to identify the major issues facing natural resource stewardship in the National Park Service and develop action plans that will advance park protection on a variety of fronts.

NRSS management team met at Lake Dillon, Colorado, to discuss emerging issues, recurring work themes, and strategies and opportunities for making progress over the next 1-5 years. Bert Frost helped to frame the discussion by stating that we can't predict the path of government, the economy, or the world for that matter, but we can still take concrete steps to best position ourselves to be of service to the Regions, NPS programs, park resource managers, and the Director's Office in helping to advance park protection. He noted that it is critical that the NRSS continues to promote sound science, leverage funds, reach out to other agencies and partners, assist park resource managers anticipate and respond to emerging issues, and help grow the next generations of leaders. Bert and others noted that more and more frequently the NRSS has been called upon for assistance with such challenges as protecting ocean and coastal resources, adapting to climate change, and managing increasingly fragmented habitats.

Participants began outlining an overall strategic plan for NRSS. As part of that effort they devoted significant time to identifying major issues that need immediate attention. A road map was laid out for advancing those initiatives as opportunities arose over the coming year. In September, a similar discussion occurred with the Natural Resource Advisory Group, which includes park and regional perspectives. Both groups identified a similar set of emphasis areas that would focus the work of the Directorate and its assistance to parks. The areas of emphasis include:



The Natural Resource Stewardship and Science management team and several program leaders met at Lake Dillon, Colorado, to discuss emerging issues, recurring themes, and strategies and opportunities for making progress over the next 1-5 years.

- Climate Change:
- · Ocean and Coastal Resources
- Conventional and Alternative Energy and Mineral Development
- Habitat Conversion, Connectivity, and Fragmentation
- · International and Boundary Issues

Chris Shaver, Air Resources Division
Chief, said that "at both meetings people
were able to look at natural resources as
a whole," and that the strategic planning
that occurred at these meetings allows us
to "think more broadly about an integrated
approach for responding to multi-faceted
threats."

As a result of these meetings a number of steps have been taken. Currently, action plans are being developed that articulate strategies for addressing the issues. NRSS staff is guiding the development of the action plans with participation from the field. In addition, NRSS staff prepared briefing

statements which are being used by the ADNRSS during the transition between Administrations. The NRSS is hopeful that by being proactive, it will enable the National Park Service to take advantage of opportunities at the national, regional and park level to influence decisions with the goal of keeping park resources unimpaired for future generations.

#### 2009

Change and transitions can be challenging, but it also brings new ideas and requires reflection. The National Park Service faces significant and emerging challenges to resource management. Through preparation and collaboration, the NRSS is building on the positive energy and vibrant communication between the regions, parks and the Directorate to advance the protection of natural resources and our national heritage.

Read the strategic framework developed at the Dillon meeting on the <u>NRPC share-point site</u>.

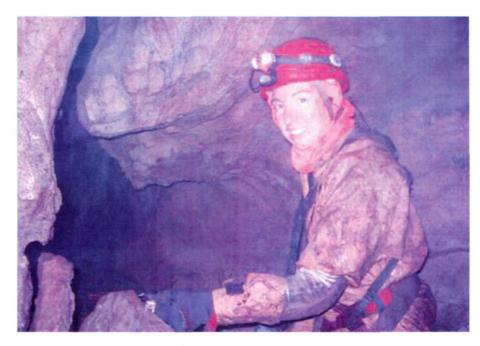
# Karst Inventory: Practiced in the Parks with Partners, Applied Abroad

By Andrea Croskrey, Geologic Resources Divsion

There are many differences between China, New Mexico, and Alaska. However, one of their similarities is that they contain world class caves and karst topography. Last year, I had the opportunity to aid resource management in all three of these places. Two of the areas are UNESCO World Natural Heritage Sites: South China Karst, Wulong County and Carlsbad Caverns National Park, New Mexico. The third, Tongass National Forest, Alaska, isn't recognized by UNESCO but is renowned by the speleological community for its cold, wet, and deep vadose caves.

In January 2008, I traveled to the Chongqing Municipality in China to explore and map caves as a volunteer with the Hong Meigui Cave Exploration Society. Inscribed as a UNESCO World Natural Heritage Site only a year before my arrival, documentation and appreciation of the amazing natural heritage included in the South China Karst site is still in its early stages. We worked closely with Wulong County to document karst features that exemplify the outstanding universal value of the area. During the survey and mapping project, we documented several unexplored caves and pits both in and outside the buffer and core zones of the protected lands. Gan Dong, a cave outside the buffer zone, revealed over 2km of passage and an abundance of undocumented biology. Most interestingly, a cave adapted loach was discovered that could be a new species.

In August 2008, I traveled to Southeast Alaska to volunteer for the United States Forest Service (USFS) on the Tongass Cave Project (TCP) expedition. The TCP is a joint venture of the National Speleological Society and USFS to explore and map caves in the Tongass National Forest. The karst



landscapes in Southeast Alaska have well drained soils that promote tree growth and have historically provided the most productive timber harvest lands for the forest. Unfortunately, improper cutting practices degrade water quality. Therefore, the USFS provides buffers around karst features, such as caves, as well as surface waterways. Karst feature locations and cave maps collected by staff and volunteers are used to protect the caves and water quality. On this expedition, we surveyed and inventoried several caves identified by the USFS on Kosciusko Island and Mt. Calder on Prince of Wales Island. On Kosciusko Island, forest units are being evaluated for a young growth cut and the maps and data we collected will be used to establish buffers and cut areas.

My most recent cave survey and inventory trip was in November 2008 when I co-led my first week-long expedition to Lechuguilla Cave in New Mexi- Continued on page 5



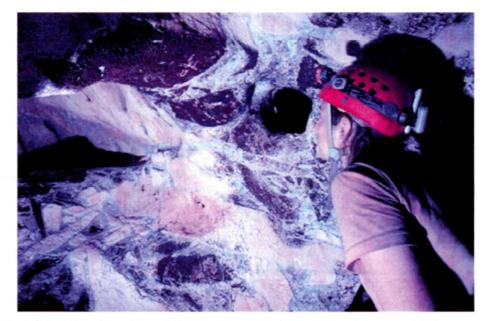
Top: Andrea Croskrey surveying in Heather's Grotto on Kosciusko Island (photograph by Heather Ritcher). Bottom: Cavers traverse the bottom of a Tiankeng (literally translated to "sky pit") to access the passageways of San Wang Dong, part of the World Natural Heritage Site core zone (photograph by Matt Oliphant).

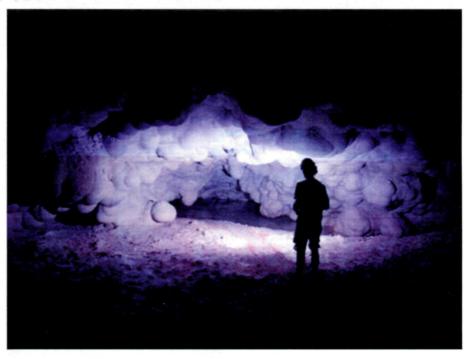
## **Karst Inventory**

Continued from page 4

co with Johanna Kovarik (USFS). Carlsbad Caverns National Park has been federally managed since 1923 and was inscribed as a World Natural Heritage Site in 1995. The break through in Lechuguilla Cave during the 1980's was an impetus in obtaining the UNESCO designation. Although, the entrance of the cave was known before the establishment of the park, the rooms now considered to be some of the world's greatest underground treasures went undiscovered for over 60 years! I have been fortunate enough to participate in three expeditions to an area of the cave known as the Chandelier Graveyard/Escher Underground. This is a complex area of the cave and several more trips will be required to fully map the 3D maze of passages and inventory the geologic features. This year we surveyed 1,306.7 feet of new passages and completed 1,418.42 feet of resurvey during our week underground.

Collaborating with Wulong County through Hong Meigui Cave Exploration Society, the USFS through Tongass Cave Project, and Carlsbad Caverns National Park through the Cave Resources Office in the last year has shown me that the National Park Service and our partners can and will continue to be a leader in documentation of natural resources. As part of the Geologic Resources Division, I have surveyed caves at Wind Cave, Mammoth Cave, and Carlsbad Caverns National Park. All of these parks have dedicated staff that maintain standards and management plans that are applicable to other karst areas around the US and world. Though seeming monotonous and inert, managers from China to Alaska to New Mexico can use the valuable information gathered from inventories of park resources to protect cave resources. Many discoveries are yet to be made and there are an abundance of base line data to gather that could be significant to parks and the world. Fortunately, the NRPC and its





partners are leading the way in obtaining, storing, and providing that information for America's National Parks.

Top: Corrosion Residue, a microbial bi-product) showing preferential spatial distribution on different pieces of limestone. (Photograph by Erin Lynch)

Bottom: Ben Tobin illuminates Lake Louise, our water source for the week. (Photograph by Erin Lynch)

#### Peter Dratch receives Award

## Life in the Fast Lane—

NRPC News in Brief

Continued from page 1

Bison Conservation Initiative.

One of the stated priorities of the Initiative was to convene a Genetic Conservation Workshop to develop bison genetic management guidelines, including the appropriate role in future conservation actions for bison with cattle allele introgression. The National Park Service, under Peter's guidance, organized the workshop at the Lied Lodge on September 2-5, 2008 and brought together university population geneticists and DOI scientists to draft bison genetic guidelines.

The recommendations that emerged from the Bison Genetics Workshop addressed the two long-term challenges to maintaining and improving the genetic health of herds where conservation is the primary management goal: actions to prevent future introgression and actions to maintain genetic diversity. Addressing these challenges, will help not only preserve bison as an American iconic species, but also foster collaborative stewardship. The success of the status of this Initiative is largely in part due to Peter Dratch's expertise and devotion to bison conservation.

#### **Biological Resource Management** Division

On October 28, 2008, Secretary Kempthorne announced the Department of the Interior Bison Conservation Initiative, a nationwide partnership to strategically manage wild bison on Interior's lands for their ecological and cultural value. The Bison Conservation Initiative provides a framework to address the conservation issues of Interior's bison herds and to promote cooperative bison conservation through partnerships with states, Native American tribes, landowners, agricultural interests, conservationists and others interested in bison health and recovery. NRSS staff worked for a year with DOI colleagues to draft the initiative, and Peter Dratch of BRMD was chosen as the first working group chair.

The working group is charged with several specific actions, including these key efforts:

- Retaining the genetic integrity of Interior's bison herds and maximizing their genetic diversity;
- Involving tribal bison experts in the Department's activities, and assisting with tribal bison initiatives;
- Convening a bison disease workshop in fiscal year 2009 to develop guidelines and protocols for addressing diseases affecting bison and bison conservation efforts.

For more information, visit the Bison Conservation Initiative webpage: http://www.doi.gov/initiatives/bison.html

Continued on page 7



Bison and calf at Wind Cave National Park. Photo by Dan Roddy, NPS.

#### NRPC News in Brief

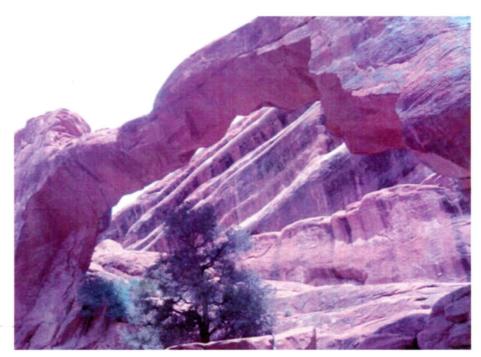
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#### Geologic Resources Division

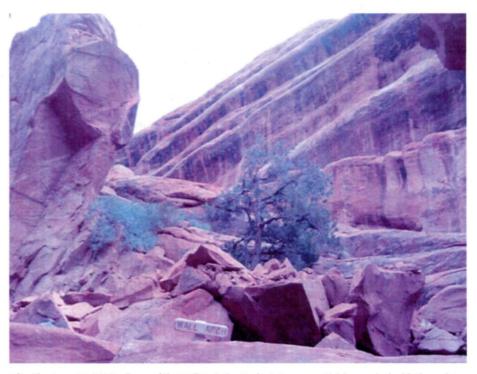
Geologic Resources Division Recommends Responses to Wall Arch Collapse. GRD has released a report with recommendations for Arches NP in response to the August 5 collapse of Wall Arch. The park requested GRD technical assistance to assess area geologic stability and management options. On August 7, staff from GRD and the Utah Geological Survey assessed the site and met with park staff. About 60 feet of Wall Arch had collapsed onto a major trail, breaking into several boulder-sized pieces. The arch's supporting limbs were still in place and showed fresh tension cracks indicating the potential for additional rockfalls. As recommended, the park closed the trail August 7, then fenced off the area. The GRD report suggested the following: monitoring additional rockfalls and potential rockfall triggers such as freeze-thaw activity and heavy precipitation; indefinite trail closure while freeze-thaw cycles occur, to allow less stable rocks to fall naturally; rock-scaling to remove the remaining unstable portions of the limbs of Wall Arch; trail reconstruction once the area stabilizes, to reduce risks; and warning signs and interpretive programs to inform park visitors of the area's rockfall potential.

#### Water Resources Division

NRPC Staff Completes a Physical Resources Stewardship Report for Guadalupe Mountains National Park: The completed the Natural Resources Technical Report entitled: Physical Resources Stewardship Report: Guadalupe Mountains National Park (Natural Resources Technical Report NPS/NRPC/NRTR-2008/121), developed cooperatively by staff of the Water Resources Division, Geologic Resources Division and Air Resources Division. A digital copy of this report is available on the NatureBib website.



Wall Arch at Arches National Park circa June 2005.



After the August 7, 2008 collapse of the Wall Arch the Geologic Resources Division worked with the park to assess area geologic stability and management options.

### NRPC News in Brief

Continued from page 7

Geothermal Well near Yellowstone Plugged: Twenty-two years ago, The Church Universal and Triumphant (CUT) drilled a well on its property adjacent to the northwest entrance of Yellowstone NP that produced thermal water in the vicinity of Park thermal features. The scientific assessments did identify the potential for the well to impact Park thermal features. This past summer, the NPS, CUT, and the State of Montana worked cooperatively to physically plug and abandon the well.

NPSTORET v.1.70 Water Quality Database Church Universal and Triumphant Released. NPSTORET version 1.70, a Microsoft Access-based water quality data management system, was released to parks, networks, and others. Included in this release was the ability to define custom state or local water quality standards or adopt any of the five available national sets of criteria. The criteria for standards can be simple or time and/or characteristic (e.g. hardness) dependent. Also included in the new release was the ability to analyze statistical results spatially using Google Earth and to visualize station locations in a variety of map services.

Oceans Workshop: At the recommendation of Natural Resources Advisory Group, the Natural Resource Program Center formed a superintendent's steering advisory committee to help the NRPC develop an implementation plan and budget priorities for the servicewide oceans program. The steering committee met in Fort Collins, CO, on November 6-7, 2008; discussed the regional strategic plans for ocean and Great Lakes parks and regional and national issues; and offered suggestions on how to structure the implementation plan. For more information, contact Jeff Cross at (970) 225-3547.

Nevada Water Decision Sets Up Protection Area Around Devils Hole: The Nevada State Engineer (NSE) has ruled on a proposal to move groundwater pumping closer to Devils Hole, Death Valley National Park and issued an Order that, with certain exceptions, any applications for new pumping or to move pumping closer to Devils Hole (within a 25 mile radius of Devils Hole) will be denied.

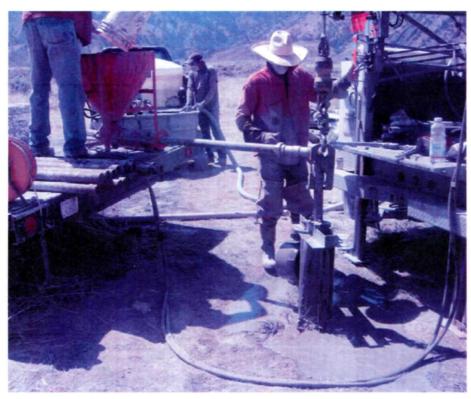
#### IT-Technical Advisory Group

The IT-TAG continued to receive briefings and consider aspects of NRPC IT infrastructure, staffing decisions, and new initiatives. The group recently collaborated to help improve the process of informing NRPC staff when known disruptions in IT services are scheduled to occur; provide guidance concerning posting information to Sharepoint vs traditional webpages; and to remain informed about ongoing challenges impacting network performance. Members were also informed about findings of the recent Thin Client Pilot study, including the proven potential for vastly improved remote network access (alternative to VPN).

#### Office of Education and Outreach

The Office of Education and Outreach was significantly involved in the November meetings of the NPS National Education Council and the NPS National Interpretive and Education Leadership Council meetings held in Portland Oregon, in affiliation with the National Association for Interpretation annual meeting. Bert Frost, Natural Resource Stewardship and Science Associate Director, was recently appointed as a permanent member of the NEC. On Bert's behalf, NRPC Center Director George Dickison gave a keynote presentation on the many cooperative aspects between natural resources and interpretation at the joint NEC and NIELC meeting on Tuesday, November 11. The interpretive community





Church Universal and Triumphant well closure. NPS Photo.

#### NRPC News in Brief

Continued from page 8

has responded quite positively and is looking forward to increased cooperation in the future. On other fronts, OEO senior writer editor Jeff Selleck was pleased to announce the issuance of the first full color edition of Park Science. Likewise, Views manager Bruce Nash noted that a recent science educators STEMaplooza conference in Colorado turned out to be an excellent opportunity to promote Views materials with educators.

**Outreach Technical Advisory Group** OTAG is pleased to report that it will be organizing a session at the March 2009 George Wright Society Conference featuring Ken Burns and Dayton Duncan. Immediately following their highly anticipated keynote presentation March 2, which will showcase segments of their upcoming epic film on the National Parks (slated for release in fall of 2009), OTAG will host a media communications session that will be led by Ken and Dayton. Deny Galvin from the NPS Second Century Commission and BeBe Crouse from public radio and other significant individuals will also participate as panelists. The session is scheduled from 10:30am to noon. Stay tuned for more regarding this interesting opportunity.

Evolution of the *Park Science* cover design, right: 2008. Bottom, left to right: 2007, 1995, 1992, 1988, and 1981.





# Coming & Going



Elizabeth "Beth" Johnson has been named Deputy Associate Director for Natural Resource Stewardship and Science in the Washington Office.

Beth has a broad understanding and extensive experience in natural resource management, field operations, program development and how to apply science in managing parks. In her new role, Beth will oversee all aspects of the Natural Resource Directorate, including the Natural Resource Program Center (air, water, biology, geology, compliance, damage assessment and restoration, inventory and monitoring, natural sounds, and night skies), the social science program, and National Natural Landmarks program. She will assume her new position some time after the first of the year.

"Beth will bring a wealth of knowledge and experience from the field to this position", said associate director Bert Frost. "I am excited that Beth is willing to take on this enormous challenge and I am looking forward to working closely with her. She will be a great asset to the Washington Office."

Beth will be coming to headquarters from the Northeast, where she currently serves as regional coordinator for the inventory and monitoring program. She has been with the National Park Service for over 28 years and began her NPS career in Washington, DC, where she worked on Servicewide programs such as social science, aquatic resources, integrated pest management and conservation biology, as well as international programs such as the "Man and the Biosphere" program. She also worked on early "State of the Parks" efforts and assisted the Department of Interior on the coastal barriers task force.

She then spent many years at Delaware Water Gap National Recreation Area working on water quality protection strategies and on many other natural resource and cultural landscape issues. She was a member of the first class in the natural resource management trainee program. Throughout her career, she has been involved in many collaborative partnerships on an interagency, state and the NGO level.

Beth received her BA in biological sciences from Russell Sage College and her MS in natural resources from Cornell University. She has been successful in fostering artnerships with positive outcomes with a wide range of constituencies. She will be a strong voice for parks in the Washington Office.



Louisa Gibson joins the Invasive Plant Management Program. Louisa will be working with Rita Beard in BRMD assisting with program needs over the next six months. Louisa recently completed a Masters in Natural Resource Stewardship at CSU. She has previously worked with The Nature Conservancy and the National Parks Conservation Association's – Center for the State of the Parks.



BRMD bids farewell to Mark Graham Mark Graham, who's been with the BRMD Wildlife Health Team 4 years now, is leaving March 1 to be the wildlife biologist at New River Gorge National River, West Virginia.



Chris Buczko joins BRMD as a STEP. Chris is assisting with BRMD's Operations and Human Dimensions and Park Flight Programs while he completes a Master's in Forestry, Rangeland, and Watershed Management at Colorado State University. He began his resource career working for the Forest Service while attending the Univer-

Continued on page 11

### Coming & Going

Continued from page 10

sity of Massachusetts Amherst, where he earned his Bachelor's in Natural Resource Studies. Chris has worked for the Park Service for several seasons as a Ranger in Yellowstone, Boston Harbor Islands, Yosemite, and Rocky Mountain.



Eva DiDonato New Marine Pollution
Ecologist with Ocean and Coastal Resources Branch. Eva DiDonato started as a Marine Pollution Ecologist with WRD's Ocean and Coastal Resources Branch in November 2008. Eva had been an Aquatic Ecologist and Water Quality Specialist for the NPS Southeast Coast I&M Network and prior to that she worked at the National Park of American Samoa. She will be stationed in Fort Collins, CO.

Hal Pranger began his assignment November 24 as the chief of the Geoscience and Restoration Branch in the Geologic Resources Division. Hal has over 22 years of experience in hydrology and watershed



processes and now oversees branch operations and the land restoration, coastal, fossil, cave and karst, geomorphological, hazards, and soil resources programs. Please welcome Hal back to the NPS!



Lisa Fay completes 6 month Geoscientists-in-the-Parks position in GRD. Lisa has just completed a huge project for the Geologic Resources Division organizing and updating the GIP program files and database, collecting products created by past GIPs, and redesigning the GIP intranet and Internet websites. The greatly improved websites can be seen at: http://inside.nps. gov/waso/waso.cfm?prg=748&lv=4 and http://www.nature.nps.gov/geology/gip/index.cfm. Lisa has been a great asset to the Division and has enthusiastically completed an amazing amount of work in a short period of time. We are pleased to announce that she will be staying on in GRD for 3 more months to write the North Coast and Cascades Network Paleontology Inventory Report. Great job Lisa!!

Matt Hunnell, ColdFusion Application Developer. Matt joined the NRPC after eight plus years developing websites and intranets for the resort real estate industry primarily in the Vail, Summit, and Lake Tahoe area. His focus is on maintaining and improving the PEPC system. His skills are



primarily in ColdFusion and MSSQL base development. Matt received his BS degree in Business / Marketing from the University of Colorado at Boulder. When not working Matt enjoys spending time with his wife Sarah and their new daughter Riley, as well as snowboarding, white water rafting, fly fishing and hiking.

Raquel Ellison joins the NRPC IT Support Team as a System Administrator.
Raquel started work with us on Monday January 5th. She has 25 years of federal service experience, most recently with the Bureau of Reclamation. She is a Colorado native with a husband and two children.
Raquel enjoys adventures with her best friend JJ, including biking, hiking, camping, and even an occasional skydive. Raquel's work schedule will be every M-F from 7-3:30. Her workspace will be located near the west end of the Oak Ridge building, just to the right of the exit/entry door as you approach it from the inside.

## Strategic Plan for Natural Resource Inventories Unveiled

By Marianne Tucker, Office of Inventory, Monitoring and Evaluation

One of the key topics discussed at the December 2008 annual meeting of IMAC (Inventory and Monitoring Advisory Council) was the draft Strategic Plan for Natural Resource Inventories, which will guide the future direction and resource allocation for the inventory component of the I&M Program. The inventory strategic plan updates the strategy for developing and delivering 12 basic inventory datasets to all parks with significant natural resources that was developed 16 years ago and described in the document NPS-75. The I&M Program has exceeded the ambitious goals set many years ago by delivering 2,767 inventory data sets to parks as of September 30, 2008, but more than 400 inventory data sets remain to be completed as part of the initial phase before additional high-priority inventory needs by parks can be addressed.

The inventory data sets delivered to parks have been very popular, but current needs to address the highest-priority inventories that park managers, planners, interpreters, and others use to manage the parks far exceed the funding that is available. The Strategic Plan for Natural Resource Inventories describes the programmatic implementation policies, priorities, efficiency measures, and budgetary strategies that I&M will comply with in order to address five major challenges over the next 10-15 years:

- Completing the Initial Phase of Basic Inventories in a Timely Manner
- Meeting Park Needs for Continuing and Recurring Inventories
- Adapting to Changing Needs and Priorities as a Result of Climate Change and Other Emerging Issues
- 4. Effective Delivery of Data and Informa-

tion to Key Audiences

Data Integration, Analysis, and Synthesis (Decision Support)

Continuing inventories are high-priority inventories that all parks do not have in common, or that were deferred until now when improved technology, taxonomy, and knowledge allow us to more cost-effectively undertake them. Examples include inventories of submerged resources (e.g., bathymetry, underwater vegetation, benthic habitat mapping), lichens, invertebrates, fossils, and wetlands. Priority during the FY 2008-FY 2012 timeframe will be given to submerged resources inventories. Recurring inventories are basic inventories that need to be repeated or updated at future intervals because of changes in resource status, such as updating a park's vegetation map or certain base cartography GIS layers.

The Strategic Plan for Natural Resource Inventories is undergoing further review, and a revised draft will be available by March 2009. Descriptions of each of the basic inventories are available on the I&M Inventory web pages, at <a href="http://science.nature.nps.gov/im/inventory">http://science.nature.nps.gov/im/inventory</a>. Inventory products and schedules for ongoing and planned inventories are available through the on-line Inventory Tracking application (<a href="http://science.nature.nps.gov/im/tracking/InventorySearch.aspx">http://science.nature.nps.gov/im/tracking/InventorySearch.aspx</a>).

Earth, Wind and Water is the quarterly newsletter of the Natural Resource Program Center

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Comments, Suggestions, Submissions? Post to: NRPC Sharepoint>TAGs>OTAG> NRPC Newsletter

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