

# SAN JUAN MOUNTAIN NOTES

Issue 4: 15 December 2007

AN ELECTRONIC NEWSLETTER FROM THE



## NEWS

[www.mountainstudies.org](http://www.mountainstudies.org)

**Avon Fund Drive Reaches 60%!** Since MSI first began leasing the Avon Hotel as its field station and headquarters in Silverton, the plan was to buy the building. Ownership will secure a reliable home for research and education in the San Juans for years to come and reduce expensive facility costs. The Avon's owner announced in July that he intends to sell the Avon in 2008 for retirement income. This news started MSI on a race against the clock to raise \$614,500 to purchase the property. In just five months, MSI and its partners have raised about 60%. The Colorado Department of Local Affairs awarded \$200,000 to San Juan County on MSI's behalf, and the Gates Family Foundation announced a challenge grant of \$60,000.



*MSI's Field Station, the Avon Hotel, gets a dusting of snow in an early season storm. Photo by Mark Esper.*

Proposals to the Colorado State Historical Fund, Boettcher Foundation, and El Pomar Foundation are pending. Friends of MSI, including the Board of Directors, have pitched in \$109,000 in donations and pledges so far. MSI is now a Region 9 Economic Development District "Enterprise Zone Project", which entitles donors of \$200 or more to a 25% tax credit on their Colorado state taxes in addition to the standard federal tax deduction. **Please consider contributing to the Avon Fund Drive. A donation/pledge form is included in this newsletter and at [www.mountainstudies.org](http://www.mountainstudies.org) under "What's New".**

**The San Juan Collaboratory Takes Shape.** The University of Colorado at Boulder (UCB), Fort Lewis College (FLC), and MSI are joining forces. The new initiative will facilitate collaborative, problem-oriented, interdisciplinary research and education focused on the sustainability of mountain and dryland systems and their human communities. Outreach with stakeholders (such as local governments, watershed groups, and land managers) will be an integral component as will opportunities for students to work/learn in a problem-oriented framework. Additional partners, such as the USFS/BLM, Telluride Institute, Durango Nature Studies, Center for Snow & Avalanche Studies and NOAA may be involved with specific projects. Kick-off efforts include a field-based summer course and internship program for students, a children's book: *My Water Comes from the San Juan Mountains*, and several research proposals. For more information, go to: <http://sjc.colorado.edu>.



*A planning meeting for the San Juan Collaboratory was held at the Avon Field Station in November. Left to right: Mark Ridders (CAIC), Mark Williams (UCB), Alessandra Jacobson (TI), Tino Sonora (FLC), Gary Gianniny (FLC), Susan Avery (UCB) and Jason Neff (UCB). Also attending: Rob Blair (MSI), Ashley Boling (TI), Brad Clark (FLC), Matt Janowiak (SJ Public Lands), Chris Landry (CSAS), Koren Nydick (MSI), Keith Roush (CSAS), and Joe Ryan (UCB).*

**Fen Restoration Planned for the San Juans.** The US EPA Region VIII recently awarded a wetland program development grant to Colorado State University and its partners Michigan Tech University and MSI to test methods for restoring damaged fen wetlands and provide training in conservation and restoration strategies. This is the third in a series of grants awarded to David Cooper (CSU), Rod Chimner (MTU) and Koren Nydick (MSI). The first two grants focused on assessing the condition of these fragile wetlands. Approximately 20% of the over 200 fens surveyed were in fair to poor condition as a result of disturbances, including off-road vehicles, ditches, roads, and mining. The third grant goes a step further and will restore fens from hydrological and vegetation damage. Restoration will begin during summer 2008 at Chattanooga and Ophir Fens, with other sites to follow. Training sessions will be held in 2009. Additional funding and in-kind support comes from U.S. Forest Service and BLM, San Miguel County, Telluride, Mountain Village, Telluride Ski and Golf Resort, and Durango Mountain Resort.

*MSI's bulk deposition collector is located next to the NADP station at Molas Pass.*



**Mercury Makes its Way to the Mountains.** Preliminary results of an MSI study show that some of the precipitation falling in the San Juan Mountains has high concentrations of mercury. A bulk deposition collector operated from April to November at Molas Pass near Silverton recorded 3 to 29 ng/L of mercury in samples analyzed thus far. Concentrations below about 6 ng/L are considered low, while levels above around 12 ng/L are high. These findings are consistent with elevated concentrations often recorded at Mesa Verde National Park since monitoring began there in 2002. Results for mercury in sediment cores and lake zooplankton will be available soon. Funding is provided by the US EPA Region VIII and the San

Juan National Forest with help from Grand Mesa, Uncompahgre and Gunnison National Forest; San Miguel County; and the Telluride Institute.

**Hydrogeology of Wolf Creek Pass.** While legal battles continue over the future of the Wolf Creek Pass area currently slated to become the "Village at Wolf Creek", a scientific study conducted in June 2006 provides insight as to how wetlands may be impacted. Using isotopic and solute signatures of water from wetlands, springs, streams and ponds, Dr. Mark Williams found evidence suggesting that older groundwater and not new snowmelt was the major source for these water bodies. Groundwater recharge came mostly from snowmelt and not summer rains and was about 1 to 10 years old. These results imply that a loss of groundwater recharge due to development of the area and construction of impervious services in particular, could reduce water flow to wetlands, springs and other water bodies. Many unknowns remain, however, due to the small scope of the study and more investigation is recommended. The study was funded by US EPA and Niwot Ridge LTER and administered by MSI. Mark Williams is a professor at University of Colorado at Boulder and an MSI visiting scientist. He is a leader of the San Juan Collaboratory (see story on page 1).

**New Staff Members Join the MSI Team.** MSI is happy to announce three new members of our team, all based in Silverton. Charlie Smith was hired as Finance and Operations Manager on October 1. Charlie previously managed Trimble Hot Springs and brings needed expertise in facilities and business operations. He is a chemical engineer by training. Also on October 1, Jeremy Yanko started as part-time Trails Coordinator for the Animas River Revitalization Project. Jeremy also is a guide for Silverton Mountain Ski

Area. Ali Morse was contracted to be the MSI local coordinator for the Mountain Climate Conference to be held June 9-12 in Silverton. Ali already is a familiar face to MSI, having served as the Avon Hotel caretaker for the past 6 months.

**MSI Board Members Make National News.** The Nobel Peace Prize was awarded to the Intergovernmental Panel on Climate Change (IPCC) on December 10. MSI Board Member Jonathan “Peck” Overpeck was one of the authors of the IPCC’s Fourth Assessment and therefore now can include the Nobel Peace Prize among his many accomplishments! Board Member Susan Avery accepted the position of Director of Woods Hole Oceanographic Institute in Massachusetts. While we are sad that she will be leaving her post at the University of Colorado at Boulder, we congratulate her as she steps forward to lead one of the top oceanographic institutes in the world. Mark Williams, a geography professor at UC Boulder and Fellow at the Institute for Arctic and Alpine Research, will take Susan’s place on the MSI Board.

## **WHO HAS BEEN STAYING AT THE AVON?**

After a wet summer, Avon visitors were treated to a beautiful dry autumn. Imtiaz Rangawala from Rutgers University continued his MSI sponsored analysis of regional climate through the month of August. Melanie Bergolc from Bowling Green State University and her assistant Candace Brendler finished up their research on mountain beetles. Also concluding a long summer stay at the Avon was Erin Hagland from Colorado State University working with Dr. Rod Chimner to complete field work on fen wetlands. Sara Simonson and Jessica Dugan, both from CSU, returned at the end of August to continue their studies of avalanche ecology and acid mine drainage, respectively. Kyle Skaggs called the Avon home all summer through September when he wasn’t out sampling alpine lakes for a MSI mercury study. The Fort Lewis College-MSI “Take Your Class to the Mountains” program had great participation in September: David Gonzales’ geosciences class, Chad Colby’s Art 101, and Shere Byrd and Ginny Hutchins’ seminar in biology all stayed at the Avon. October guests included Christie Lucero from Farmington High School with her geology class and Keith Roush and Lee Dexter in town with the Center for Snow and Avalanche Studies. Researchers from CU Boulder, Fort Lewis College and MSI participating in the San Juan Collaboratory stayed at the Avon in November while working on joint programs to be held in the Silverton area. Brooke Moran from Western State brought her class to study the Silverton Schools Expeditionary Learning program. In addition to research and education, the Avon served two community groups this autumn. The annual Men’s Retreat was up from Durango and had a very productive stay, utilizing all the facilities and having their meals catered. A fun night was had by all when MSI lent the Avon to the Silverton Jamboree for their fundraiser - there was food, music and a silent auction. **The Avon Field Station in Silverton is available to accommodate research, education, and non-profit users, please visit our web site – [www.mountainstudies.org/Avon](http://www.mountainstudies.org/Avon).**

## **VISITING SCIENTISTS in the SPOTLIGHT**

**Melanie Bergolc** is a Ph.D candidate in biology at Bowling Green State University, Ohio. She is studying how geology affects beetle biodiversity and community structure near Molas Lake near Silverton. More specifically, she asks how geology influences specific soil factors (e.g. temperature, moisture,



Melanie Bergolc (left) marches with MSI in Silverton’s 4<sup>th</sup> of July Parade.

sediment size) that in turn influence ground-dwelling beetles. Her oral presentation won third place in the student competition at the 2007 Rocky Mountain Conference of Entomologists. Melanie has taken advantage of a broad array of MSI services. She stayed at the Avon Hotel Field Station, used the Mayflower Mill field lab, and was included on MSI's group research permit during the summers of 2006 and 2007. Melanie was awarded a 2006 MSI mini-grant and also received funding from the Geological Society of America and The Explorers Club's Exploration Fund.

**Heidi Steltzer** is a Research Scientist at the Natural Resource Ecology Laboratory (NREL) at Colorado State University. She is an ecosystem ecologist and studies carbon and nitrogen cycling in arctic and alpine plant communities. Her work has taken her to Alaska, Greenland, northern Colorado, and now the San Juan Mountains. She received an MSI mini-grant in 2005 to kick-start her investigation of special carbon compounds in alpine flowers and how they help to retain nitrogen within the ecosystem. Heidi also collaborates with Ed Ayers, also at NREL, to understand linkages between plant community structure, microorganisms, and leaf decomposition in San Juan subalpine forests. On top of all this, Heidi is a member of the Larimer County Environmental Advisory Board and recently became a mom.



Heidi Steltzer

## OPPORTUNITIES / FUTURE

**Help MSI by shopping at igive.com.** It won't cost you any more and over 680 stores will donate a percentage of your order to MSI. Includes Target, Expedia, JC Penny, Home Depot, Best Buy, eBay, Gap and many others. Go to [www.iGive.com/MSI](http://www.iGive.com/MSI).

**Mountain Climate Conference in Silverton, June 9-12, 2008.** Join us for three days of presentations and discussions about climate, its impacts, and strategies to adapt to changes. Public lectures and a workshop for managers will be offered as well. This conference is sponsored by CIRMOUNT and hosted by MSI. Go to: [www.fs.fed.us/psw/mtnclim/](http://www.fs.fed.us/psw/mtnclim/).

**2008 MSI Mini-Grant Program Announced.** For the fourth year, MSI offers mini-grants to students and recent graduates to address issues of environmental or socio-economic concern in the San Juan Mountain region. Application deadline is March 14. Go to: [www.mountainstudies.org/Research/miniGrant.htm](http://www.mountainstudies.org/Research/miniGrant.htm).

**Fort Lewis College Funding for Students and Faculty.** Fort Lewis students can apply for up to \$500 mini-grants to fund their projects focused in the San Juan Mountain region. Application deadline is March 14. Faculty and staff can apply for free lodging for their class or campus group at the Avon Hotel Field Station. Application deadlines are January 18 (winter & summer I semesters) & May 9 (summer II, III and Fall semesters). Go to: [www.mountainstudies.org/Research/opportunities.asp](http://www.mountainstudies.org/Research/opportunities.asp).

**Two spots open on MSI's Board of Directors.** MSI seeks individuals with experience and/or motivated interest in fundraising to join MSI's Board. Full or part-time residents of the San Juan Mountain region are preferred. If you are interested, please contact Bill Dodge, MSI's President at 970-387-5165.

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To be added to or removed from our mailing list, go to: [www.mountainstudies.org/contact/](http://www.mountainstudies.org/contact/).

## PLEASE SUPPORT MSI.

Become a member.  
Donate to the Avon Fund Drive.  
Shop at [www.igive.com/MSI](http://www.igive.com/MSI).

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**Mountain Studies Institute (MSI)** is a 501(c)3 not-for-profit mountain research and education institution and high-altitude field station with headquarters in Silverton, Colorado and offices at Fort Lewis College in nearby Durango. MSI's mission is to enhance understanding and sustainable use of the San Juan Mountains and its communities through research and education.

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### MSI ANNUAL MEMBERSHIP FORM - 2008

(or go to the online membership form at [www.mountainstudies.org](http://www.mountainstudies.org))

#### Member Information

Title \_\_\_\_\_ First Name \_\_\_\_\_ Last Name \_\_\_\_\_  
Mailing Address \_\_\_\_\_  
City/State/Zip \_\_\_\_\_  
Day Phone (\_\_\_\_) \_\_\_\_\_ Evening phone (\_\_\_\_) \_\_\_\_\_  
Email \_\_\_\_\_ Fax (\_\_\_\_) \_\_\_\_\_

#### Contribution Amount

\_\_\_ Sapling (student) \$15      \_\_\_ Upper Montane \$100      \_\_\_ Alpine \$1,000  
\_\_\_ Woodland (individual) \$40      \_\_\_ Subalpine \$250      \_\_\_ Peak \$2,500  
\_\_\_ Ponderosa (Family) \$75      \_\_\_ Timberline \$500      \_\_\_ Other: \$ \_\_\_\_\_

#### Method of Payment (Please check all that apply)

\_\_\_ I have enclosed a check payable to Mountain Studies Institute.  
\_\_\_ I wish to pay with a credit card (please fill in the info below).  
    \_\_\_ Visa    \_\_\_ MasterCard      Card No. \_\_\_\_\_  
    Expiration Date \_\_\_\_\_      3 digit security code on back of card \_\_\_\_\_  
    Name on Card \_\_\_\_\_  
    Billing Address \_\_\_\_\_  
    Signature \_\_\_\_\_ Date \_\_\_\_\_  
    Amount to be Charged \$ \_\_\_\_\_

Please send this form with payment to:

Mountain Studies Institute, PO Box 426, Silverton, CO 81433.

MSI is a federally recognized 501(c)(3) tax-exempt organization. We will promptly send your tax receipt letter. In addition, contributions >\$200 are eligible for a 25% Colorado Tax Credit. For more information on planned giving or the endowment fund, please contact Charlie Smith at 970.387.5161. For Program Information, contact Koren Nydick at 970.247.7071.

**Thank you for your generosity!**

# MOUNTAIN STUDIES INSTITUTE AVON BUILDING ACQUISITION PLEDGE FORM



*The Historic Avon Hotel, located on 10<sup>th</sup> Street in Silverton, is creatively re-used as a scientific field station and community building.*

**Yes!** I would like to contribute to the AVON BUILDING ACQUISITION Fund Drive to help establish MSI's permanent presence in Silverton and San Juan County. As a 501(c)(3) not-for-profit organization, we will mail you a receipt of your tax-exempt donation. MSI is classified as an Enterprise Zone Project, which allows for a 25% tax credit off your Colorado State tax burden.

**Category of contribution (please check):**

- Contributor – Annual MSI membership and acknowledgement in MSI newsletter and the Silverton Standard newspaper (\$100-\$999).
- Donor – Above, plus MSI T-shirt and name will appear on an engraved plaque in the lobby of the Avon (\$1,000 to \$9,999).
- Grantor – Above, plus naming rights\* of a room in the Avon (\$10,000 plus).

I \_\_\_\_\_ (print name) pledge a donation of  
 \$ \_\_\_\_\_ to the AVON BUILDING ACQUISITION FUND.

\_\_\_\_\_ (signature) \_\_\_\_\_ (date)

MAILING ADDRESS: \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PHONE: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

AFFILIATION \_\_\_\_\_

*Note: Your donation will not be spent until the actual purchase. If the Avon cannot be acquired by the end of 2008, donors may request return of their funds.*

*\*Room naming rights include name or short phrase on a plaque outside the room and the right to include additional appropriate messages, dedications, artwork, furnishings, etc. in the room for the enjoyment and use of future occupants.*

Please mail your pledge (or check) to:  
**Mountain Studies Institute - Avon Fund**  
 Post Office Box 426  
 144 East 10<sup>th</sup> Street  
 Silverton, CO 81433



Thank you for your dedication and financial support!