

# **Colorado Scientific Society**

The objective of the Society is to promote the knowledge and understanding of Earth science, and its application to human needs



# ANNUAL FAMILY NIGHT

"Avalanches and their Impact on People and Industries"

*by* 

Dale Atkins, Colorado Avalanche Information Center

October 19, 2001 (Friday)

Berthoud Hall

Colorado School of Mines, Golden



5:30 Reception (with hor d'oeuvres and beverages)

CSM Geology Museum

16<sup>th</sup> & Maple St. Entrance

6:30 Dinner (see page 2 for menu)
(see page 3 for dinner reservation form, return NLT 10/16)

8:00 Presentation Berthoud Hall, Room 108





# ANNUAL FAMILY NIGHT

## "Avalanches and their Impact on People and Industries"

by

### Dale Atkins, Colorado Avalanche Information Center

A multimedia presentation will present an introduction of snow and avalanches with an overview of the avalanche problem in Colorado and the United States as it relates to recreation, transportation, mining, and land-use issues. Avalanches will be described as to their awesome power and destructive forces and strategies for mitigating avalanche hazards discussed.

Dale Atkins has been an avalanche forecaster with the Colorado Avalanche Information Center since 1987 and a professional ski patroller involved in mountain rescue for more than 25 years. Dale is the U.S. representative to the Avalanche Commission in the International Commission for Alpine Rescue and has published numerous articles and videos on avalanches.

Yum! Dinner will be buffet style and includes London broil and pasta primavera, garden salad, dilled carrots, twice-cooked potatoes, rolls, cheesecake, and beverages.



#### World Wide Wow... "Click of the Month"

For those of you with internet access, here are a few interesting and/or useful links:

#### http://geology.about.com/mbody.htm

---caramba! lots and lots of geology and science links. Go here if you have time to kill.

http://www.realtime.net/~revenant/geo.html --- tons of links to societies and fun stuff such as: http://24.114.7.13/kevin/Trilobites.html -- trilobite lovers will go wild here.

and this month's "mystery" URL:

http://www.geo.cornell.edu/geology/Galapagos.html ---enjoy!

#### A View Through the Brown Cloud



Oh my, it's October, the calm before the holiday storm. We've just had a September that will live in infamy and I can't help wondering what the neighborhood trick-ortreaters will be wearing come the 31st. Sigh, even the poor kiddies have to be *super* politically correct this year. Are kids even allowed to be "just kids" anymore? Be *generous* with the candy...cavities and plaque are the least of our worries.



# Student Oral Presentation Competition (for cash!)

7:00 pm, Monday October 29th, 2001; CSM Berthoud Hall room 108

Every year the Colorado Scientific Society hosts a Student Night in the fall. Three students are chosen to give 15 to 20 minute talks on research projects they are involved in, and **cash awards** are given. Competitors are selected from semifinal competitions held at CSM, CU, and CSU. Colorado School of Mines will host the semifinal competition for interested students from CSM, Colorado College, and Adams State.

**Awards of \$100, \$25, and \$25** will go to the top three speakers at the CSM semifinals. The winner from the CSM competition will then present his/her talk at the CSS Student Night on November 15th at the **American Mountaineering Center** in **Golden**. **Awards of \$125, \$75, and \$75** will go to the three students who give presentations at the CSS meeting on November 15. (Thus, if you win that night, you will have won **\$225** total... that's heaps of beer money!!).

<u>To enter</u>, please submit, by October 22nd, title and abstract (200 words or less) to: Dr. Eric Nelson (enelson@mines.edu).

This is a great opportunity to practice your GSA talks, or other talks you may be preparing!!

CSS 2001 Family Night (Friday, Oct. 19th) reservation form:
Make checks payable to Colorado Scientific Society and send by October 16, 2001 to:
Michele Tuttle U.S. Geological Survey Box 25046, MS 973 Denver, Colorado 80225
Name(s):
Number of tickets @ \$20.00 each for a total of \$

#### A Legislative Update of Geological Interest

Letter to the Editor (originally printed in the DREGs newsletter, reprinted with the author's permission) by Susan Landon, President of Rocky Mountain Association of Geologists

#### Fellow Explorationists,

Politics can be frustrating. The following is a recent example from Colorado. This past legislative session saw a troubling series of events regarding the status of the Colorado Geological Survey (CGS). The current State statutes contain conflicting statements regarding the position of the CGS. One states that the Survey is an independent agency (Division) within the Department of Natural Resources (DNR). The other states that it is part of the Division of Minerals and Geology (DMG), the mining regulatory agency within the DNR. The bipartisan Joint Budget Committee (JBC) introduced a bill near the end of the legislative session that would have eliminated the conflicting language and clearly re-establish the CGS as a Division within the DNR. The State Senate passed the proposed bill with only one dissenting vote, and the House passed the bill unanimously. Governor Owens then delayed action on the bill until the legislative session ended (and with it any possibility of an override) and vetoed the bill.

Late last year, the DNR submitted their proposed budget for the 2001-2002 fiscal year to the JBC with a major change that would merge the roughly \$4 million budget of the CGS into the roughly \$6 million budget of the DMG. For those of us in the geological community who have helped work on building a relevant and effective Survey over the past 10 years, this merger is inappropriate. When the Executive Director of the DNR first made a public statement indicating his plans to merge these budgets, two geologists (one from the petroleum community and one from the hydrogeologic community) met with him and explained their concerns regarding the proposed merger. He told them that it was not a topic of discussion because he had decided to go forward with the merger. How did this state of affairs come to be? To understand the current situation, some history needs to be provided.

The CGS was re-established as a Division within the DNR in 1967 after several decades of inactivity. As financial constraints developed in the 1980's, the CGS was forced to work on a "cash-funded" basis and significant conflicts with the geological consulting community developed. A task force was established to evaluate the CGS. Its report was supportive of a state geological survey and made twelve recommendations including one to form an advisory group. An Executive Order, in 1991, established the CGS Advisory Committee. The primary role of this independent body was to monitor potential conflicts resulting from cash funding and identify new sources of funding. In 1992, the legislature created the Division of Minerals and Geology within the DNR and established the Minerals, Energy, and Geology Advisory (MEGA) Policy Board. Thus, the DNR avoided dealing with an administrative problem directly. The MEGA Board was given the initial task of making a recommendation on the future of the CGS. This was an interesting process as the Board, in simple majority, voted to maintain the CGS as a Division within the DNR. Some members of the Board argued that, due to the nature of the motion, a supermajority was necessary to leave the CGS as a Division. Therefore, the CGS became, on paper, part of the DMG. At that point the MEGA Board sent a compromise recommendation to the Governor regarding the location of the CGS and details of how it should be managed within the DNR. From the MEGA Board recommendation, an Executive Order was issued that stated that the CGS would become part of the DMG contingent upon certain criteria:

- 1. The name shall remain the Colorado Geological Survey and the Advisory Committee shall continue,
- 2. The salary level of the State Geologist shall continue at the Division Director level,
- 3. The State Geologist shall have appointing authority for Survey staff,
- 4. The State Geologist shall retain authority to represent Colorado in all geologic matters, including representation on Boards and Commissions,
- 5. The State Geologist shall have freedom to solicit and negotiate grants from all sectors of the economy,
- 6. The State Geologist shall administer funds and grants received that result from work preformed by the Survey, and
- 7. The State Geologist shall be represented at all Department Director meetings, functions, etc. This includes presentations and justification of the Survey's annual budget and decision item requests.

During this time, the former State Geologist had retired and a new State Geologist was hired at a Division Director level. When the current administration took office in 2000, the first action that affected the CGS was the abolishment of the Advisory Committee. This was reported to be a cost-cutting action so the administration must have been surprised to learn that the Advisory Committee existed without financial support from state funds. Since then, the Executive Director of the DNR has been determined to follow through with the merger of the budgets, although there is no financial savings associated with the merger.

Why should the geological community care about these changes? The functions and statutory purposes of the DMG and CGS are very different. The CGS is primarily a science agency that addresses issues as diverse as geologic hazards (including avalanche hazards), water quality, geologic mapping, and geologic investigations that result in reports that benefit many communities: oil and gas, mining, engineering, environmental, local government, and other public users. The DMG is a regulatory agency with the purpose of regulating the development, operation, and reclamation of mining properties. In a letter to the Governor, Peter Dea, at the time Chairman of the Board and CEO of Barrett, wrote: the state geologist "has done an exemplary job of bringing the CGS to a high level of accountability and respect over the last several years. She has recruited a very professional team of geologists, engineers, and support staff. Ms. Cowart and her qualified team provide objective science to the citizens of Colorado. This includes geologic hazard analysis for highways and residential areas, environmental and hydrologic baseline measurements, and resources evaluation."

When the budget proposal became public last fall, several members of the geological community decided to work with the JBC on this issue. Constituent geologists met with their legislator-members of the JBC explaining the reasons not to merge the budgets. In response to the DNR proposal to merge the budgets, the JBC's Budget Analyst recommended against this request and noted that the merger between the CGS and DMG had never occurred, as many of the conditions were unmet or undone. The Budget Analyst also identified the numerous inconsistencies and cited conflicting statutes. The JBC subsequently introduced the proposed legislation to eliminate the conflicting language. It is disappointing that Colorado's Governor chose to veto their bill, particularly after it had received overwhelming, bipartisan approval from both the House and the Senate and widespread support from the geological community.

The next legislative session will probably address the status of the CGS again. Stay tuned for chapter two or, better yet, help us write the next chapter. Contact your legislator and urge him or her to support the JBC's efforts if you believe the CGS should continue to help the citizens of Colorado as a free standing science agency within the DNR.



# **WANTED**: Books and reference material that concerns Geology and Rocky Mountain History and Archaeology.

Wondering what to do with those cobweb covered books? Don't toss them out!! Ray Eklund of Littleton, Colorado, would like to buy or trade your unwanted volumes for his library. Ray writes:

I am contacting you with the hope that you may have some books and reference material that concerns Geology and Rocky Mountain History that you may be interested in selling. I am purchasing most geological, CSS volumes, Rocky Mtn. area history and archaeological items. These are for my library. Books that are duplicates I will trade or sell with other interested persons to defer the costs of the volumes I keep. I would like an opportunity to make an offer. Please call me at 303-979-1889 or write to me when you have time. Sincerely, Ray Eklund

10572 Harebell Run Littleton, CO 80125



# Earth Science Meetings and Talks

Newsletter items must be received by the 1st of each month. This may include special events, open houses, etc...thanks!



- Colorado Scientific Society's regular meetings are held the third Thursday of the month at the Colorado Mountaineering Center in Golden (unless otherwise advertised). Social time begins at 7:00 p.m. and talks start at 7:30 p.m. Upcoming: Family Night: October 19<sup>th</sup>; Student Night: November 15<sup>th</sup>; Business meeting and Presidential Address: December 13<sup>th</sup>. For info., contact Michele Tuttle at (303) 236-1944 or mtuttle@usgs.gov
- **Colorado School of Mines Lectures** For Heiland Lectures at 4:00 p.m. on Fridays, contact Michelle Szobody (303) 273-3451. Van Tuyl Lectures refreshments at 4:00 p.m., talk at 4:30 p.m.on Thursdays in Berthoud Hall, room 108: **Oct. 18: Dr. Larry Meinert,** Department of Geology, Washington State Univ., *Terroir Relationship between wine and catastrophic glacial flooding*.
- **Denver International Petroleum Society (DIPS)** meets the 2<sup>nd</sup> Friday of each month at the Wynkoop Brewing Co., 18<sup>th</sup> and Wynkoop Sts. Reception begins at 11:30 a.m., lunch at 12 p.m., program at 12:30 p.m. Make reservations (required) by leaving message at (303) 623-5396. Reservations accepted after 8 a.m. on Friday until 10:30 a.m. on Wednesday prior to the meeting. Cancellations accepted until 11:00 am Wed. prior to the meeting. Cost: \$15 for lunches; talk only is available for \$2 (make checks payable to "D.I.P.S."). Contact Keith Murray at (303) 986-8554 for information.
- Denver Mining Club meets every Thursday (except when noted) at Country Harvest Buffet at Villa Italia, 7200 W. Alameda Ave., Lakewood, 11:30 a.m.–1:00 p.m. Oct. 4, Harry Covey, Boulder County Mine Owner, A Funny Thing Happened on the Way to the Mine—A Collection of Mining Jokes and Stories. Oct. 11, Bruce Humphries, Minerals Program Supervisor, Division of Minerals and Geology, CO Department of Natural Resources, What You Need from the State of Colorado: Notices of Intent for Prospecting and Claim-staking Regulations. Oct. 18, Scott Hazlitt, Manager, Leadville Mining and Milling Corp, New Opportunities in the Leadville Mining District, Colorado. Oct. 25, Allan Juhas, Consultant Economic Geologist, Mining: Society's Loss Leader and What to Do About It.
- **Denver Region Exploration Geologists' Society (DREGS)** meets in the Consolidated Mutual Water Company Building, 12700 West 27th Avenue, Lakewood. Social hour 6:00-7:00 p.m. Technical presentation at 7:00 p.m. Meetings are normally scheduled for the first Monday of each month. For info. contact Jim Piper, (303) 932-0134, or the website **http://www.dregs.org**.
- **Denver Well Logging Society (DWLS)** meets on the third Tuesday of each month, Sept. through May. Lunch and a technical talk at the Wynkoop Brewery begins at 11:30 a.m., 18th and Wynkoop Sts. in Denver. Call Elice Wickham at 303-573-2781 for reservations. Web page: **http://dwls.spwla.org**
- **Rocky Mountain Association of Geologists (RMAG)** Reception at 11:30 a.m., lunch at 12:00 p.m., talk at 12:25 p.m. Reservations taken by recording at 303-623-5396 until 10:30 a.m., Wed. before the luncheon. Cancellations are taken until 11:00 a.m. on Wed. at 303-573-8621. Luncheon cost is \$20 payable to RMAG at the door. Reservations are not required for talk only---cost is \$3. Meeting location: Denver Petroleum Club, Anaconda Tower, 555-17th St., 37th floor.
- USGS Geologic Division Colloquium Thursdays, 1:30 p.m., Foord Rm., Building 20, entrance W3, Denver Federal Center. Oct. 11, Cecilia Dalupan (University of Colorado at Boulder), Mining and Sustainable Development -- A Global Perspective. Oct. 18, Jim Cole (USGS/GD/Earth Surface Processes), Episodic Pliocene and Pleistocene drainage integration along the Rio Grande through New Mexico. Oct. 25, Sara Oyler-McCance (USGS/BRD-MESC); TBA. For info. call Laura Strickland at 303-236-5302, or email: lstrickland@usgs.gov

University of Colorado at Boulder, Geological Sciences Colloquium Wednesdays, 4:00-5:30 p.m., Benson Earth Sciences lecture hall, Rm. 180. Refreshments at 3:30 p.m on the 3rd floor. Oct. 3, Demian Saffer, University of Wyoming, *Topographically-driven groundwater flow, heat transport, and the San Andreas 'heat-flow paradox' revisited.* Oct. 24, Karl Mueller, Dept. of Geological Sciences-University of Colorado, *TBA*. For info., call 303-492-8141.

**University of Northern Colorado, Greeley, Earth Science Seminar** Fridays, 4:00-5:00 p.m., Ross Hall, Rm. 3310. For a schedule, call the UNC Dept. of Earth Sciences at 970-351-2647.





## Dinosaur Ridge Discovery Day Saturday, November 3rd 10:00 a.m. - 3 p.m.



West Alameda Pkwy. at Rooney Rd., Morrison, CO www.dinoridge.org

Ridge closed to traffic for the entire day.

New interpretive seating areas

Dinosaur track viewing ramp

Dinosaur bone viewing ramp

Vanosaurus provides transportation over the ridge.

Dinosaur tracks left about 100 million years ago can be viewed close-up from the just-completed ramp at the track site on the east side of the Ridge. Dinosaur bones about 150 million years old are on the west side of the Ridge.

Guides from Dinosaur Ridge will be at points of interest, including the newly covered interpretive seating areas on the east and west sides of the Ridge. The "Vanosaurus, "our mini-van," will provide transportation over the Ridge. The route can also be walked making use of the 17 interpretive signs that describe the geological and paleontological features.

sponsored by: Riviera Black Hawk Casino and the Home Builders Association

## Politically Incorrect Quote of the Month:

"I am what is called a Professor Emeritus — from the Batin 'E', 'out', and 'meritus', 'so he ought to be'."

— Stephen Beacock (1869-1944)





Colorado Scientific Society P.O. Box 150495 Lakewood, CO 80215-0495

http://www.coloscisoc.org/





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