



Colorado Scientific Society

*In pursuit of the promotion of knowledge,
understanding of science,
and its application to human needs.*

Family Night

The Incredible Climate of Colorado

Nolan Doesken

**Assistant State Climatologist , Colorado Climate Center, and
Director of the Fort Collins Weather Station**

Thunderstorms, flash floods, wind storms, hail storms, dust storms, blizzards, heat waves, arctic blasts separated by periods of glorious sunshine and occasionally dull and boring weather are all a part of Colorado's incredible climate. Is the climate changing? How do we track climate variations? What makes Colorado's climate so interesting? What's going to happen this winter? These are some of the topics that will be discussed. Come prepared to learn about Colorado's remarkable climate. There will even be chances to win some interesting prizes.

Tuesday, October 13, 1998

Reception: 6:00 pm, Dinner: 6:30 pm,

Colorado School of Mines Geology Museum

(west end of Berthoud Hall at the corner of 16th and Maple in Golden)

Talk: 7:30 pm in Room 108, Berthoud Hall,

Colorado School of Mines

Golden, Colorado

Table of Contents

President's column: Experimenting with Field Trips	2
Colorado Scientific Society 1998 Family Night.....	3
New Members.....	3
1998 Student Night.....	3
Museums and News.....	5
Earth Science Meetings and Talks.....	5
Invitation to Join the Colorado Scientific Society.....	7
Colorado Scientific Society Officers, Councilors, and Chairpersons	8



President's column: Experimenting with Field Trips

Going into the Fall, the Colorado Scientific Society council worried about the Fall field trip. In previous years, low attendance levels made the multi-day Fall field trip a marginal proposition - often a lot of energy was expended on trips which had minimal attendance. This experience is not limited to CSS field trips - multi-day trips have also been difficult to run for national meetings. Recent GSA meetings found that one day trips commonly fill rapidly, but finding enough people for multi-day trips can be very difficult.

Despite this concern, we had a great Fall field trip! Ted Ball (from Tetra Tech in Denver) combined with Lee Shropshire, Ken Hopkins and Bill Nesse (all from University of Northern Colorado) to lead the Fall CSS field trip through the northern Front Range and Medicine Bow Mountains. A great diversity of geology, ranging from Archean gneisses to Holocene rock glaciers, was appreciated by all. The snap of Fall was in the air, with yellow aspens contrasting with white quartzites at Medicine Bow Peak. Lee, who organized the logistics of the outing, must be living right because the only rain fell on the trip back home to Colorado.

This trip, however, almost was not run at all. A total of 10 professionals signed up, giving a 4:6 ratio of trip leaders to paying CSS attendees. Luckily, 26 students from the University of Northern Colorado and Colorado State University were able to come due to a greatly reduced student rate resulting from the use of University vans. The students ranged from experienced graduate students to freshmen less than one month into their first geology course. The result was an extremely diverse, multi-generational experience.

Interestingly enough, there was relatively little mixing of the groups. CSS members and leaders rode in one van, CSU students packed another, and UNC students filled the remaining 2 vans. From a student perspective, grouping by school seemed more comfortable, especially since the new freshmen and graduate students were still meeting their own compatriots. As a faculty member, I took the role of explaining the difficult concepts behind tectonic reconstructions, introducing more basic concepts and helping in rock I.D. As a result, I often had a cluster of CSU students in tow, and I noticed similar groups of UNC students around the UNC faculty. At individual stops, the different paces of the groups became very evident, necessitating extra efforts to keep the group together.

I talked to the CSU students and CSS members about this experiment in multi-level, multi-generational field tripping. I expected the elementary students to be overwhelmed by the complexity of the geology discussed, but they voiced considerable satisfaction in getting outside and seeing the earth in its native state. All the CSU students enjoyed having professional geologists around to offer different perspectives, particularly when these perspectives differed from those of their professors! The CSS members appreciated the youthful student energy, but voiced frustration about the lack of interaction with the students. They were hoping that the students would use their expertise and experience by asking them questions. One reason why there was little interaction between generations is that CSS participants were greatly outnumbered by the students. Several of my graduate students observed that there was much better interaction on previous trips where the professionals outnumbered the students.

My conclusion is that intergenerational field trips can be very rewarding but they need specific planning to manage the great range of individual energy levels and to allow better interaction between the generations and schools. Minor changes in field trip format could have resulted in more contact between the groups.

Intergenerational field trips represent an opportunity for the Colorado Scientific Society to fill an open niche, which would be a great help for the area's colleges and universities. But is the society really interested in doing this? If we omit the leaders, I was the only representative of the 25 CSS officers, councilors and committee chairpersons. A more even mix of professionals and students would have helped bridge the trip's geological generation gap.



So, again I ask for your input. Would the inclusion of students make you more or less inclined to attend CSS field trips? Is the increasingly low CSS attendance in multi- day field trips something that we need to accept by eliminating them or replacing them with one-day trips? What do you think?
Eric Erslev, Colorado State University (970 491-6375, erslev@cnr.colostate.edu)

Colorado Scientific Society 1998 Family Night

REGISTRATION FORM

Please **print** the information requested below.

NAME: _____ PHONE _____

ADDRESS _____

Name(s) of guest(s) you plan to bring _____

Send to E. Erslev before Oct 10th at Department of Earth Resources, CSU, Fort Collins, CO 80523.
Last minute e-mail reservations to erslev@cnr.colostate.edu accepted after the 10th.

Cost: \$15 per person includes beverages (beer, wine, soda), buffet dinner with salad, fresh fruit, grilled vegetables, wild rice pilaf, angel food cake with berries and a choice of grilled lemon chicken breast or baked Jamaican salmon filet.

New Members

The Colorado Scientific Society welcomes these new members!

Judith Hannah, Department of Earth Resources, Colorado State University
Peter Folger, American Geophysical Union, Wash. DC
Elmer Baltz, Retired USGS, Lakewood, CO

1998 Student Night

On Tuesday November 10, the Colorado Scientific Society will host a special night highlighting the geoscience work of students from Front Range colleges and universities. The program will consist of three 15-to-20-minute talks and will be held at the Sheridan, with people gathering at 7:00 and the talks beginning at 7:30. Cash prizes will be given to all students chosen to participate. All participants will also receive complimentary one-year membership in the Society. This student night provides a fine opportunity for students to showcase their research before a knowledgeable yet friendly audience. Students are welcome to



repeat talks from the GSA national meeting of October. Interested students can contact Eric Erslev (Department of Earth Resources, Colorado State University, Fort Collins, CO 80523; 970-491-6375, erslev@cnr.colostate.edu;) to be included in preliminary sessions to be run at CSU, CSM, and CU.



Museums and News

Friends of Dinosaur Ridge For information call 697-DINO. Visitors' Center is located at 16831 West Alameda Parkway (north side of Alameda, just west of the C-470 overpass). Open 9 a.m. to 4 p.m. weekdays and weekends. Fireside chats are held at the Morrison Town Hall, 110 Stone Street in Morrison starting at 7 p.m.

Association for Women Geoscientists Information about the AWG Chrysalis Scholarships may be obtained by writing to: Chrysalis Scholarships, Association for Women Geoscientists, c/o G & H Production Company, LLC, # 930, 518 17th Street, Denver, CO 80202; ph. 303-534-0708, fax 303-623-0708, email: gandh@idt.net

Earth Science Meetings and Talks

Colorado Scientific Society's regular meetings (excepting the October meeting) are held the 2nd Tuesday of the month at the Sheridan Hotel at 360 Union Blvd. Social time begins at 7:00 p.m. and presentations start at 7:30 p.m. For information, contact Eric Erslev at (970) 491-6375 or erslev@cnr.colorado.edu.

Denver International Petroleum Society (DIPS) meets the 2nd Friday of each month at the Wynkoop Brewing Co., 18th and Wynkoop Streets. Reception begins at 11:30 a.m., luncheon at 12 p.m., program at 12:30 p.m. Make reservations (required) by calling Marybeth Davies (303) 573-3909x223. 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 Wednesday prior to the meeting. Cost: \$15 for lunches; talk only is available for \$2 (make checks payable to "DIPS"). Contact Keith Murray at (303) 986-8554 for information.

Denver Region Exploration Geologists' Society (DREGS) meets in the Mutual Consolidated Water 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 information contact Jim Cappa, (303) 866-2611. Future meetings will be October 5, and November 2, 1998.

Colorado School of Mines Lectures For Heiland Lectures at 4:00 p.m. on Fridays, contact Michelle Szobody (303) 273-3451. For information on Van Tuyl Lectures, call the Dept. of Geology at (303) 273-3800.

Colorado State University Geology Lectures Mondays, 4:10 p.m. in room 109 or 316 of the Natural Resources Building. Call the Dept. of Earth Resources at (970) 491-5661 for further details.
10/ 5, Ron Hewitt Cohen, Colorado School of Mines, "The Use of Microbes to Reduce the Costs of Metal and Acidity Removal from Metal Processing and Mining Industry Waste Streams and Soils – Make Microbes and Manure Your Major Metal Wastes Management Miracle"

University of Colorado at Boulder, Geological Sciences Colloquium

Wednesdays, 4:00-5:30 p.m., Rm. 180. Contact Kathy Madsen 303-492-8141 for details October schedule:
10/7 Jonathan Overpeck, NOAA/INSTAAR,
"Environmental Change of the Last Millennium and Its Implication for the Future"
10/14 Frank Ethridge Colorado State University,
"Avulsion and Crevassing in the Sandy Niobrara River: Complex Response to Base Level Rise and Aggradation"
10/21 Dan Schrag Earth and Planetary Sciences, Harvard,
"Reconstructing Ocean History and Sediment Geochemistry from Deep Sea Pore Fluids"





Invitation to Join the Colorado Scientific Society

The Society is dedicated to the advancement of science through open forums and activities. We sponsor lectures, field trips, student scholarship grants, and discussions of scientific matters of public concern. Please help us enlist new members.

I hereby apply for _____ membership in the Colorado Scientific Society.
(Regular, Corresponding, Student)

(Last Name) (First Name) (Middle)

(Address) (Telephone, with area code) (e-mail)

(City) (State) (Zip)

(Company/Agency/University)

(Mailing address if different than above)

School Degree Year Major

Main Scientific Interests

DUES—Your dues are for the calendar year and help support the newsletter, monthly meetings, two field trips each year, family night, and the Emmons Lecture.

Regular Member (\$15) _____
Corresponding (outside Denver metro area) Member (\$10) _____
Student Member (\$5) _____

Please make your dues payable to Colorado Scientific Society. Thank you!!

The success of certain Colorado Scientific activities depend on your volunteer help. Please circle those activities for which you can provide assistance. We will pass your name on to the appropriate Committee Chairperson.

<i>Arrangements</i>	<i>Fund Raising</i>	<i>Newsletter</i>	<i>Publicity</i>
<i>Best Paper Award</i>	<i>History</i>	<i>Outreach</i>	<i>Science Fairs</i>
<i>Field Trips</i>	<i>Membership</i>	<i>Program</i>	<i>Web Site</i>

I certify that all statements in this application are correct and, I agree to promote the objectives of the Society and to abide by its Constitution, Bylaws, and Rules.

Applicant's signature

Date

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

Visit CSS at <http://rainbow.rmi.net/~css/>



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

Colorado Scientific Society Officers, Councilors, and Chairpersons

OFFICERS

President: Eric Erslev, CSU, (970) 491-6375
President-Elect: Ken Pierce, USGS, 236-1244
Treasurer: Michael N. Machette, USGS, 273-8612
Secretary: Stephen F. Personius, USGS, 273-8611
Past President: Karl Kellogg, USGS, 236-1305

COUNCILORS

1996-1998: James A. Cappa, CGS, 866-2611
1996-1998: Richard B. Wanty, USGS, 236-1819
1997-1999: Michelle L. Tuttle, USGS, 273-8626
1997-1999: William D. Nesse, UNC, (970) 351-2830
1998-2000: Eric Nelson, CSM, 273-3811
1998-2000: Ted Ball, Consultant

COMMITTEE CHAIRPERSONS

Arrangements:	Aaron John Kullman, CSM, 273-3066
Database Manager:	Robert C. Bucknam, USGS, 273-8566
Best Paper Award:	Bruce Bryant, USGS-retired, 236-1234
Field Trips:	Lee Shropshire, UNC, (970) 351-2285
History:	Marjorie E. MacLachlan, USGS-retired, 986-7192
Membership:	Dean Kleinkopf, USGS, 236-1412
Memorial Funds:	Karl Kellogg, USGS, 236-1305
Memorial Funds Treasurer:	Michael N. Machette, USGS, 273-8612
Newsletter Editor:	Scott Lundstrom, USGS, 236-7944
Outreach (signs):	Peter J. Modreski, USGS, 236-5639
Program:	Ian Ridley, USGS, 236-5558
Publicity:	David Moore, USGS, 236-1271
Science Fair:	Chuck Weisenberg, 279-7629
Webmaster:	Randy Schumann, USGS, 236-1525

**** NOTE: Please help us with publicity by posting copies of the Newsletter on bulletin boards.**

