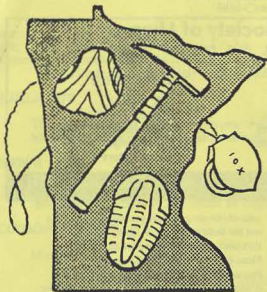


SPRING 1991



Geological Society
of Minnesota

NEWS

Minnesota Geological Survey

MAY 29 1991

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Editor:
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NEWSLETTER

Spring 1991

The Prez Sez

Well, we've wrapped up another great lecture year, had our Spring Banquet, and are ready to set out for summer fun in the field and at the State Fair.

Looking back at the lecture series, two main thoughts spring to mind: a) the quality of the speakers and the popularity of their topics remain strong and at the top of the charts; and b) we faced a fair amount of change this past season, and with some patience and a little nifty footwork we managed to get through it all intact. Most of the change, of course, occurred in the location of the lecture rooms. We started out in our old reliable Physics 166, shifted at midseason to Science Classroom Bldg 125, took a detour to Moos Tower, and ended up back at Science Classroom Bldg 175. This was our year to learn everything about the U of M campus that we ever wanted to know, but were afraid to ask! We hope to be back in Physics 166 next Fall (more on this in the next newsletter).

The theme of the lecture series, "Back to the Basics," was motivated in part by all the new members who have joined GSM in the last couple of years and partly as a refresher for the veterans. We started with the formation of the solar system and the earth itself, had three lectures on the first four billion years (Archean and Proterzoic), a lecture on minerals, a three lecture series on the three major rock types, and ended with my own personal favorite, a four part series on evolution. The latter included a

state-of-the-art graphical presentation on DNA and the building blocks of life by Sam Kirkwood and a fascinating lecture by Bob Sloan on the evolution of life in the Precambrian. Talk about timing and relevance, it was shortly after Sloan's lecture that articles appeared in the newspapers and science magazines about the amazing discovery in China of well-preserved soft-body fossils right at the Precambrian/Cambrian horizon, emphasizing Sloan's point that life was well established in Precambrian time.

Next season's lecture series is devoted to the general theme of "Urban Geology." Thanks to the hard work of Dick Uthe and Dwight Robinson, the titles are fixed, all of the speakers are committed (including the Spring Banquet), and the labs are set. The detailed schedule will be included in the next newsletter, but just to give you a hint of things to come, the first three lectures deal with how geography and geology influenced human settlement in the Twin Cities and with both bedrock and glacial geology of the Twin Cities. Come and learn about your own neighborhood.

We now look forward to the Summer Field Trips and our exhibit at the State Fair. There's more information on both in this newsletter. I urge you all to participate in both: you'll have a great time, meet lots of interesting people, and learn a thing or two about geology.

SEE YOU THIS SUMMER!
Allen Cox, President GSM

1991 FIELD TRIP NUMBER ONE
Mid-Continent Rift Zone

Type: Two-Day Trip
Date: June 15 & 16
Leaders: James Miller, Minnesota Geological Survey
Penny Morton - University of Minnesota at Duluth

HIGHLIGHTS

This two-day field trip will explore evidence of the Mid-Continent Rift Zone in the Duluth, Minnesota/Superior, Wisconsin environs.

WHEN & HOW

We will meet Saturday morning, June 15, at 8:30 a.m., in the parking lot of the Thompson Hill rest stop (on Highway 35) south of Duluth. We will car pool at that location.

ACCOMMODATIONS

Hotels:

Goldengate	Cloquet	(\$33-49)	218-879-6752
Holiday Inn Duluth	Duluth	(\$49→)	218-722-1202
Super 8 Motel	Duluth	(\$44-59)	218-628-2241
American Motel	Carlton	(\$37→)	218-384-3535

Campgrounds:

Jay Cooke State Park Carlton 1-800-765-CAMP

Other:

St. Scholastica - Dorms Call Fran Corcoran
by June 1 724-2101

COST

Expenses of field trip leaders and mailing are paid for by the participating members of each field trip. Each adult shares expenses equally. Non-member guests pay an additional \$5 fee.

OTHER

Come prepared for any type of weather or terrain. *Please wear your name tag*

We will be eating lunch in the field both Saturday and Sunday -- bring your own.

Each field trip participant will be required to sign a waiver of liability on Saturday morning, prior to the start of the field trip.

SIDE TRIP

The Tower-Soudan Mine State Park is open for business. Make a plan to meet your friends there on Friday, June 14, before you join the "official" guided tour!

PLEASE CALL

If you are planning to participate in the 1991 Field Trip Number One, please call Fran Corcoran at 724-2101 and leave a message with your name. Include the number in your party so we will have field trip materials for all. Thanks!

Field Trip Season Begins

We have a great summer of field trips to look forward to. The plans are made, the leaders are committed, and the dates are set. This being an odd-numbered year, there will be four local outings during a weekend in June, July, August, and September. We'll be going North, Northeast, Southeast, and Northwest around the state. We go rain or shine, wind or calm. The fun is guaranteed; the other conditions are always a bit iffy.

Trip 1. June 15-16. Duluth/Superior
Penny Morton (UMD Geol. Dept.) and Jim Miller (UM Geol. Dept.) will conduct a two-day trip on the midcontinent rift in the vicinity on Duluth and Superior, WI. A sidetrip to the Tower-Sudan iron mine is planned for Friday June 14.

Trip 2. July 20. Grantsburg Lobe
Mark Johnson (Gustavus Adolphus Geol. Dept.) will lead a one-day tour to discover the glacial geology of the Grantsburg Lobe from the most recent Ice Age.

Trip 3. August 10-11. Southeastern Minnesota
The ever-popular Howard Hobbs (UM Geol. Dept.) will take us on a two-day trip to the southeastern part of the state to examine the Driftless Zone.

Trip 4. September 14. St. Cloud
Len Ceroka and Ivan Watkins (St. Cloud State) will conduct a one-day outing around the St. Cloud area and will emphasize a "hands on" approach where they give us the basic facts and we figure out the geology.

Don't worry about sign-up sheets to get on the mailing list. ALL GSM members will get the announcement for each trip with the details of meeting place, times, and itinerary. Keep in mind that all field trips are self-supporting, and we do ask for your share of the fee, usually around lunch time when everybody is in a good mood. There is an additional \$5 fee for guests who are not GSM members.

Hope you can join us as we trek about the countryside this summer. If you have general questions about field trips, please call Fran Corcoran (724-2101).

Hints for Field Trippers

Since our field trips are outdoor, hands-on events and take place rain or shine, the following points should be kept in mind when planning your trip:

1. Clothing: casual and practical, preferably layers that can be added or removed for maximum comfort; comfortable walking shoes or boots; plastic rain coat and hood.
2. Equipment: Plastic bags for fossil specimens, masking tape for marking and annotating rock samples, pens, notebook, pocket knife, geologists' hammer (optional).
3. Food and drink: We always have lunch in the field; bring drinking water.
4. Optional items: Camera, field glasses, loupe (hand lens), rain boots, rock/fossil guides.
5. Overnight: In addition to usual items, plan for more meals in the field with canned or dry foods that do not need refrigeration. Although motels and camping areas will be suggested, you are responsible for your own accommodations.
6. Plan to spend to whole day; schedules tend to be flexible; we will return when we arrive.

1991 GSM Roster Available

Our 1991 roster has been printed and is available to members at all GSM functions (Spring Banquet, field trips, Annual Meeting, lectures). In addition to the membership directory, the roster contains the list of GSM directors, past presidents, committees, and a general description of activities. Special thanks are due to Warren and Jan Mitchell for compiling, organizing, and printing this year's roster; they really did a marvelous job.

Oops!! We Missed Dick

Dick Selander's name was inadvertently omitted from the list of committee members on the Exhibit Committee and the Field Trip Committee. He is a valued member to both committees, and we regret the oversight.

State Fair Invitation

Like most of us, you are already planning your social calendar for late August. You will, no doubt, be wanting to volunteer at our booth in the Education Building at the State Fair.

Our State Fair booth is our single most important means of attracting new members and has been for many years. The enthusiasm and interest of our current members at the booth reaps new members by the score each year.

When the Exhibit Committee met a few weeks ago, we decided to jazz up the joint. We need to make the most of our expensive ten-foot booth, so we are reshaping the walls, getting a new stylish table cover (and maybe even a new table), new chairs, hardbound resource books, new improved instructions for our volunteers, a

cooler, plenty of handouts, (hopefully) a fan, and we are still taking suggestions! We are meeting again June 3 at the Cox's home to nail down the remaining items, such as a Minnesota bedrock map with county outline overlay so everybody can see what's under the back 40.

Remember, you don't need a degree in geology to qualify for staffing the booth. In fact, you don't even have to know how to spell "plate tectonics." You only need a little patience and a friendly disposition. A favorite answer to hard questions is, "Gee, I don't know, but if you come to one of our lectures, you can ask a real geologist."

Don't miss out on this exciting opportunity to advance the cause of geology in Minnesota and to meet lots of interesting people. Volunteer to staff the booth at the State Fair this year.

To reserve your four hour shift on your favorite day(s) and hour(s), call Fran Corcoran (724-2101). Sign up early and often! !
STATE FAIR DATES: THURSDAY
AUGUST 22 - MONDAY SEPTEMBER 2.

NEW

SUMMER

1991

EXTINCTION OF THE DINOSAURS CSch 0528

About 70 million years ago, dinosaurs, which had been a dominant presence on the earth for millions of years, suddenly became extinct. How rapidly did this happen? Over a few years? Over a few thousand years? And what caused this mass extinction? Climate change? Volcanic eruptions? Meteor impact? Examine the proposed biotic, terrestrial, and extraterrestrial causes for the extinction of dinosaurs. (Limited to 25)

Day: Tuesday, June 18 & 25, 1991
Time: 6:30-8:30 p.m.
Place: Pillsbury Hall, Room 121
Cost: \$30 (age 62, \$20)
No late fee through June 11

Instructor: Robert E. Sloan, Prof.
Dept. of Geology/Geophysics for 36
years; research interests include rocks
and fossils of southeastern MN and the
extinction of dinosaurs in Montana and
China

REGISTRATION FORM

Please register me for: _____ CSch 0528 - Extinction of the Dinosaurs
_____ CSch 0530 - Sharks: Realities and Myths

Make check payable to the University of Minnesota, and mail to Compleat Scholar, 206 Wesbrook Hall, 77 Pleasant St. SE, Minneapolis, MN 55455. For further information, call 624-8880.

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