



**MONTANA GEOLOGICAL SOCIETY**

# NEWSLETTER

MGS Vol. 53 No. 4p

**April 2009**

**MGS Meeting 11:45 AM  
Tue April 22nd, 2009  
Judge Lynn Hughes  
United States District Judge  
Houston, TX  
“Dilemmas of Trust”**

See Biography on Page 3.

Members who do not  
Receive an e-mail  
Reminder can RSVP by  
calling Doretta Brush  
at Ballard Petroleum  
(406) 259-8790

**MGS Beer-Thirty 4:00 PM  
Doors open at 3:00PM  
Fri April 24th, 2009  
Marc S. Hendrix, Ph.D  
University of Montana  
Missoula, MT**

“Sedimentary Record and Tectonic  
Evolution of the Flint Creek Basin,  
West Central Montana”

**Immediately to follow above:  
MGS Beer-Thirty 4:00 PM  
Doors open at 3:00PM  
Fri April 24th, 2009  
Jim R. Staub  
University of Montana  
Missoula, MT**

“Oil Generating Coals (Type II  
Kerogen) from Indonesia”

**MGS HOME PAGE:**  
[www.montanags.org](http://www.montanags.org)

**MGS EMAIL:**  
[montanageologicalsociety@  
gmail.com](mailto:montanageologicalsociety@gmail.com)

## **PRESIDENT’S LETTER – PAT LEMKE**

April, 2009

Remember why you became interested in science? One definition of science is the “system of knowledge concerned with the physical world and its phenomena especially as obtained and tested through the scientific method”. A number of MGS members had a great experience as judges and exhibitors working with a couple hundred inquisitive young minds at the Science Expo last week. Thanks to all who gave their time and knowledge to help. There were some first-rate projects and great scientific thinking represented. Maybe you were one of those kids who were always taking stuff apart to see how it worked. Or maybe you would catch bugs, or frogs or snakes and beg your mom to let you keep them in your room as pets so you could observe and learn about them. And you might have had treasure boxes full of interesting rocks, fossils, petrified wood, pine cones, bones, bird nests, or who knows what else you found in the woods and hauled home. When you finally got into junior high, science was your favorite class, and by high school you were working on special science projects and learning about more advanced sciences like biology, physics and chemistry. At some point you began considering going on to college and studying science as a career. And hopefully, after all these years of being a scientist, that natural inquisitiveness and search for answers and the excitement of discovery and learning hasn’t been buried too deeply by the responsibilities of adulthood.

The MGS President’s letter, by the nature of its format, is one of two things. It can be a promotional for MGS events, or it can be a commentary--an editorial if you will-- of the writer’s interests and views. I have tried to include both. Maybe a disclaimer needs to be included; “This does not reflect the official position of the MGS or the opinion of some of its members”. A few of my essays have generated a crossfire of comments across the email. Most of the MGS membership is involved in oil exploration as independent, consulting and company geologists and geophysicists. We also include government research scientists, professors, students, Schlumberger engineers, and a host of other disciplines that come under the heading of “earth scientists”. We don’t all share the same views on issues like global warming, environmentalism, or politics. In fact, at least two of our Distinguished Lecturers have been global warming proponents and have presented some compelling research on global climate change. Good scientific theories have always been controversial. The MGS newsletter shares an open format and we are always looking for material pertinent to earth science, the oil industry, environmental and energy policy and especially those issues close to Montana. There’s plenty going on in this administration and we welcome your insight and opinions as well.

**Continued on page 2.**

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## Presidents Letter Continued from previous page;

I'm no expert on any of these issues, but I've read the research and conclusions of many people who are. Science teaches us to be critical and skeptical. These words generally have a negative connotation, but in science they are good and necessary. In our culture there is too much of a "If I read it on the internet it must be true" attitude. True science does not follow this format. The scientific method dictates that interpretation based on scientific experimentation or modeling be verifiable and repeatable. No experts are more qualified than earth scientists to address challenging and controversial issues such as climate change, alternative energy, and resource management as well as exploring for and developing the resources we need for today and the future. And hopefully some of those sharp young minds at the Science Expo will become the scientists and engineers who continue to face and meet those challenges.

## Geology in the News

### Famous paleontologist to plead guilty to fossil theft March 20<sup>th</sup>, 2009 By Josh Levs

An internationally renowned paleontologist will plead guilty to stealing dinosaur bones from federal land, his attorneys said in a court filing.

Nate Murphy, whose famous finds include Leonardo, one of the best-preserved dinosaurs in the world, will make that plea in federal court in Billings, Montana.

Earlier this month, Murphy pleaded guilty to state charges of stealing a fossil from private land in order to sell it. An expert cited in that case said Murphy's find was worth between \$150,000 and \$400,000.

The self-taught dinosaur expert, who is director of vertebrate paleontology at the Judith River Dinosaur Institute, could face jail time.

Murphy and his attorney did not immediately respond to phone messages Friday from CNN.

Jessica Fehr, lead prosecutor in the case, said the U.S. Attorney's Office would not comment until after the plea is entered.

In court papers, federal prosecutors say Murphy knowingly took fossils from federal property between about August 2006 and August 2007. The "paleontological resources" were said to be worth at least \$1,000. In the state case, Murphy pleaded guilty to a felony charge of theft. As part of the plea, the state recommended Murphy's sentence be deferred for five years.

Douglas Erwin, president of The Paleontological Society and curator of the Smithsonian's National Museum of Natural History, said "theft of fossils from public lands has long been a problem."

**Editors Note: Find out more at CNN.com**

<http://www.cnn.com/2009/TECH/science/03/20/dinosaur.bone.theft.montana/index.html>

**MGS Luncheon April 21<sup>st</sup> 2009**  
**11:45 AM – The Petroleum Club**  
**21<sup>ST</sup> Floor Crowne Plaza Hotel**  
**Billings, MT**

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**LYNN N. HUGHES**

United State District Judge  
Houston, Texas

*Funded by the AAPG Foundation*

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**Dilemmas of Trust**

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**Biography**

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Judge: United States District Court, Houston, 1985 –; Texas Civil District Court, 1979-85.

Adjunct Professor: South Texas College of Law, 1973-2003; University of Texas, 1991, 2000.

Member: Judicial Advisory Board, Law & Economics Center, George Mason University School of Law; Advisory Board, Houston Journal of International Law, 1980- (chair, 1989-99); American Anthropological Association; Council on Foreign Relations.

Education: University of Virginia School of Law, LL.M.; University of Texas Law School, J.D.; and University of Alabama, B.A.

Advisor: European Community, Moldova, Albanian opposition, Ukraine, Belorussia, Albania, Romania, Russia. 1989 – 98.



**MGS**  
 Montana Geological Society



**By-Passed Pays and Plays:**  
**Lessons Learned from Missed Opportunities**

**CANCELLED**

**Due to unforeseen, unavoidable instructor time conflict with his work responsibilities this PTTC course regrettable had to be cancelled. By now you should have received a refund of all fees associated with signing up for this course. If not please contact Mary Carr at 303.273.3107, mcarr@mines.edu**

**We will see what we can do to possibly reschedule this for a later date. Thanks to Brad Thompson, Mary Carr and William DeMis for attempting to organize this course.**



**The MGS is still looking for a few good books!**

Thanks to the generosity of Ballard Petroleum, MBMG, and most recently, Bill Samsel, John Utgaard, and John Graham, we have collected 71 of 73 identified MGS publications. Doretta Brush has shipped them to AAPG for digitizing, which, because of backlog, may take up to two years.

Take a minute and search your library for any of the two volumes we're missing.

Two copies of each MGS publication will be sent to the AAPG sponsored Data Pages group in Tulsa who will digitize the books. The digital data will be marketed by AAPG and MGS. The books will not be returned.

If you would like to donate a publication, call the Publication Committee editor collecting for that year:

Joe Carlisle:                      406-294-6222                      [jcarlisle@180.com](mailto:jcarlisle@180.com)                      1980-1989

We need the following publications:

Copies Needed	Year	Title
1	1984	Guidebook to Northwest Montana and Adjacent Canada
1	1987	5th International Williston Basin Symposium



## MGS GIVES OUT BIG AWARDS AT SCIENCE EXPO

On March 20<sup>th</sup> three intrepid MGS members, Don French, Bob Schalla and John Wheaton, took on the task of awarding seven earth science-related industry awards at the annual Billings Clinic Science Expo. The MGS gives out three cash awards (along with a certificate suitable for framing) to the best earth science project in grades 1 through 6, 7 and 8, and 9 through 12. This year's awardees included Maddie Flamm, a fourth grader at Hardin Intermediate School, for her project "*Testing Water on the Big Horn River, Phase Two*". Maddie tested water samples from four sites along the river to evaluate oxygen content, temperature and other factors, compared them to data she had collected for last year's Expo, and then drew conclusions regarding changes in river flow and possible fish populations. The MGS middle school award went to Callie Ellingson, an eighth grader from Sleeping Giant Middle School in Livingston. Callie's project was called "*Shake, Rattle and Roll*". Callie constructed four sugar block houses held together with peanut butter, placed each on a different substrate, subjected them to a simulated earthquake and then evaluated the damage and drew conclusions regarding what type of land might be the most dangerous to build on. The third MGS award, for high school students, was not given because none of the entrants had a sufficiently earth science related topic.

In addition to the MGS awards the intrepid trio also awarded two cash prizes provided by Energy Consultants, LLC for the best elementary school projects related to engineering, geology or petroleum. One of these awards went to Haley Archer, a first grader at Arrowhead Elementary School for her project entitled, "*What are the Rimrocks Made of ?*". The second was given to Curtiss Zaugg, a fifth grader at Arrowhead for his project, "*Micro-organisms in Oil*". The Association for Women Geoscientists award was given to Genessa Demin, an eighth grader at Sleeping Giant Middle School for "*Reducing Tsunami Damage to Coastal Cities*". And last, but not least, the Ted and Betsy Campen Earth Science Award was given to Jonathan Hertz, a first grader at Arrowhead Elementary for his project, "*Slip Slidin' Away*", which investigated the affects of running water on tilted cookie sheets filled with soil.

The kids' excitement and enthusiasm for their projects was obvious and although the MGS judges spent the better part of three hours reviewing numerous projects and interviewing the burgeoning scientists who worked on them, all agreed it was good fun and hope that there will be more earth science projects to consider at next year's Science Expo.

# **“Beer Thirty Continues!”**

**Marc S. Hendrix Ph.D Returns!  
Professor of Geology  
University of Montana**

**“Sedimentary Record and Tectonic Evolution of the  
Flint Creek Basin, West Central Montana”**

**April 24<sup>th</sup>  
4:00 PM at the Petroleum Club  
Doors open at 3:00PM**

**Sponsored by  
Montana Geological Society**



**Jim Staub  
Professor of Geology  
University of Montana**

**“Oil Generating Coals (Type II Kerogen) from  
Indonesia”**

**April 24<sup>th</sup> 2009  
at the Petroleum Club  
Immediately following above**

**Sponsored by  
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## MGS PUBLICATIONS

2006 Montana Oil & Gas Fields CD-----	\$65.00
MGS - NRGDC Northwestern Geologic Service Sample Logs (MT, ND, SD) ----- Over 2500 sample logs on CD-ROM, regional sets also available	\$2500.00
2000 Guidebook: Northern Montana & the Montana-Alberta Thrust Belt (2 Vol. Set) ----- 50 <sup>th</sup> Anniversary Symposium	\$125.00
1998 8 <sup>th</sup> International Williston Basin Symposium -----	\$55.00
1998 Core Workshop Guide for Williston Basin Symposium -----	\$30.00
1997 Bighorn Symposium Guidebook -----	\$50.00
1997 MGS-TRGS Field Conference Guide -----	\$25.00
<i>"The Edge of the Crazies: Where the Mountains Meet the Plains"</i>	
1996 AAPG Rocky Mountain Section Meeting Expanded Abstracts Volume -----	\$25.00
1995 Guidebook: Seventh International Williston Basin Symposium -----	\$100.00
1993 Guidebook: Energy and Mineral Resources of Central Montana -----	\$54.00
1991 6 <sup>th</sup> International Williston Basin Symposium -----	\$55.00
1991 Guidebook: Geology and Horizontal Drilling of the Bakken Formation -----	\$50.00
1991 Field Trip Guides: Beartooth Mountains -----	\$7.50
Sequence Stratigraphy of the Eagle Sandstone at Billings -----	\$7.50
1989 Guidebook: Geologic Resources of Montana -----	\$80.00
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1978 Economic Geology of the Williston Basin -----	\$100.00
1971 Catalog of Stratigraphic Names -----	\$10.00
1969 Guidebook: Economic Geology of Montana -----	\$8.50
1951 BGS 2 <sup>nd</sup> Annual Central Montana Field Conference -----	\$12.50
1950 BGS 1 <sup>st</sup> Annual Field Conference -----	\$12.50

To place an order please contact Doretta Brush (406) 259-8790 [dbrush@ballardpetroleum.com](mailto:dbrush@ballardpetroleum.com)  
S & H charges are not included in prices. Add \$6 US shipping or \$12 Canadian for each book ordered. For 1985 guidebooks add \$15 US shipping or \$25 Canadian.