



## Geologists in the Public Eye

John Hoganson and Ed Murphy have had a very busy summer. Following publication of their book "Geology of the Lewis and Clark Trail in North Dakota" in July they have been interviewed on KFYZ and KXMB TV in Bismarck, KXMC TV in Minot, and Prairie Public Radio, and between them have given more than a dozen presentations at various public and organizational venues around the state. Hoganson and Murphy's presentation, also entitled "Geology of the Lewis and Clark Trail in North Dakota", was given on July 29, 2003 at the North Dakota Heritage Center; at the grand opening of the Missouri-Yellowstone Confluence Interpretive Center in Ft. Buford on August 23, 2003; the Missouri River Festival and Symposium in Bismarck on September 19, 2003; and the Knife River Indian Villages National Historic Site on October 26, 2003. All these events were accompanied by book signings. A book signing was also held at Maxwell's bookstore in Bismarck on August 16, 2003 and at B. Dalton's in Minot on December 5, 2003.

In addition to the venues listed above, John Hoganson spoke on the "Geology of the Lewis and Clark Trail in North Dakota" to audiences at the Lewis and Clark Institute Teachers Summer Workshop in Bismarck on July 3, 2003, the Red River Valley Water Workshop for Teachers in Walhalla on July 17, 2003, the Lake Sakakawea Girl Scout Camp near Hazen on August 7, 2003, and the Bismarck Lions Club on August 18. Hoganson has found time to fit several tours into his schedule as well. On September 27, 2003 he led a field trip of Boy Scouts to the Stumpf Site Natural Area; and on October 9, 2003 gave a geologic tour of the Bismarck/Mandan area to AAPG distinguished lecturer, Bruce Trudgill.

Ed Murphy gave presentations on the "Geology of the Lewis and Clark Trail in North Dakota" to the Wednesday Breakfast Club in Bismarck on October 8, 2003 and The Westerners on October 13, 2003. On September 29, 2003 Ed was also invited to speak at a meeting of the Bismarck Rotary Club on the subject of "Slope Stability and the Bismarck Railroad Bridge".

John Hoganson and Ed Murphy were invited to present a paper on scientific observations made by Lewis and Clark in North Dakota for a Pardee Keynote Symposium entitled *The Science of Lewis and Clark: Historical Observations and Modern Interpretations* at the Annual Meeting of the Geological Society of America held in Seattle, Washington on November 5, 2003.

On September 23, 2003, John Bluemle gave a presentation entitled "The Magnitude and Rate of Past Global Climate Changes" at the monthly meeting of the American Petroleum Institute in Dickinson. He spoke on the same subject to students and faculty at the University of Mary on October 2, 2003 and, braving treacherously icy roads, at a meeting of the Dickinson Rotary Club on October 29, 2003.

At a Brownie Girl Scout Camp entitled "My Dad Rocks", held on July 26, 2003 at Camp Neche near Bismarck, Lorraine Manz led a group of approximately 15 father-daughter pairs through a series of activities related to geology and environmental awareness. The activities were followed by an informal award ceremony in which each Brownie received her "Earth and Sky" Try-It patch. The day must have been a success because Lorraine was invited to a second Girl Scout meeting, this time at Bismarck Public Library where, on November 15, 2003, she gave a presentation on glacial Lake Agassiz. On September 5, 2003 she gave a presentation to representatives of the Spirit Lake Environmental Administration on the subject of the glacial geology of Devils Lake and the Fort Totten Reservation and on September 11 and 12, participated in the LaMoure County Eco-Ed Camp, a two-day environmental education camp for 7<sup>th</sup> grade students.

Randy Burke continues to represent the NDGS at meetings concerning the Weyburn Project. (For more information see Burke's article in NDGS Newsletter v.29/2, summer 2002.) On June 23-25, 2003 he attended Project Coordination and Sponsors Meetings in Bismarck and Beulah; and more recently, on October 7, 2003, traveled to Regina, Canada to participate in a Task 2 (Geosphere) progress and problem solving meeting.

# Geochemical Mapping Survey of North Dakota: Status Report

This project, which is part of a nationwide effort to create a detailed geochemical landscape for the continental US, Alaska and Hawaii, is a cooperative effort between the NDGS, the US Geological Survey, the North Dakota Office of the Natural Resources Conservation Service (NRCS), and North Dakota State University (NDSU). By the end of the 2003 field season (which for many of us arrived abruptly on October 29 with the first of a series of heavy snowfalls and unseasonably cold weather) approximately 400 of the 735 randomly-selected sample sites in the State had been visited by NRCS and NDSU field crews, resulting in the collection of more than 1,500 soil samples. With the exception of several dozen samples collected in Barnes and Cass counties, most of these samples have come from the western and northern parts of the state.

Approximately half of the samples have already been shipped to the USGS for chemical analysis, and the remainder will follow before the end of the year. It is expected that sample collection will be completed during the spring and summer of 2004, with the full set of chemical analyses being available early in 2005.



NDGS/NDSD/USGS/ Geochemical Survey  
Cells sampled as of 28 November 2003



## NDGS Web Site Updates

NDGS Webmasters, Jim Martel and Julie LeFever, have completed redesigning the NDGS Website to ensure federal disability access compliance and have begun work on the Paleontology site. The Newsletter section has progressed with the release of the remaining archived newsletters. They are published in PDF format for you to download. Kent Hollands, Linda Johnson and Linda Hagen have been busy scanning, increasing the number of available publications. The well circulars section is progressing with the addition of county maps showing the locations of the wells. The section on regulations and regulatory manuals has been updated providing the newest documentation. The new sections to our site, Ask a Geologist and Teaching Tools are providing a new avenue for you, the public, to ask us questions. Please stop back often and check out the new additions to our site and feel free to leave comments for our webmasters.

## Comings and Goings

### Brett Woodward



In August, the NDGS hired Brett Woodward to fill the vacancy of Paleontology Laboratory Specialist. Brett has a Bachelor's degree in geology from the University of North Alabama, and an MS in geoscience with an emphasis in paleontology from the University of Louisiana at Monroe. Brett has taken advantage of several opportunities to make use of his knowledge and skills as a paleontologist. Beginning the summer of 2000, he served an internship at Fossil Butte National Monument in Wyoming. While there, he taught visitors to the park the intricate process of excavating fossils and supervised any who chose to participate in the digs that were in progress at that time. During the two summers that followed, Brett continued to gain field experience as an employee of the National Park Service, first by mapping contacts and fossil locations in Guadalupe Mountains National Park, Texas, and returning in 2002 to Fossil Butte to collect, map and catalog fossils from the Eocene Wasatch Formation.

When Brett is not in the field collecting fossils, his duties with the Survey will keep him very busy at the NDGS paleontology laboratory at the Heritage Center in Bismarck. Among his diverse responsibilities are the cataloging and preparation of fossils for inclusion in the State fossil collection or for exhibit in the museum, and supervising the many volunteers that donate their time and energy to various tasks in the paleontology laboratory.

Brett and his wife Sonya are from Florence, Alabama. They are proud owners of two St. Bernards, who are no doubt enjoying the snowy North Dakota winter immensely. Brett also enjoys hunting and plays guitar, although he modestly refuses to admit how good he is.

### Mark Gonzalez

Mark Gonzalez left the North Dakota Geological Survey in September to join the Dakota Prairie Grasslands, a management unit of the United States Forest Service, as its Soils and Hydrology Program Manager. In the three years that Mark was with the Survey he authored several publications including a "Guide to the Geology of Theodore Roosevelt National Park" (NDGS *Miscellaneous Series* 86, coauthored with Bob Biek) and an extensive report on the fluvial and environmental history of the Little Missouri Badlands (NDGS *Report of Investigation* 101). He also completed more than a dozen maps under the STATEMAP program and was, as we all know, editor of the *NDGS Newsletter*.

Around the Survey offices Mark was one of those people whose opinion and advice on many topics was valued and often sought. From subjects as diverse as the economics of oil in North Dakota and glacial geomorphology to the migratory habits of bald eagles, Mark's comments, like his work with the Survey, were thoughtful and thoroughly sound.

Mark's love for North Dakota and his encyclopedic knowledge of its fauna and flora added a dimension of enjoyment to his field work that was clearly revealed in his *Newsletter* column "Field Notes from the Editor". Although his new position at Dakota Prairie Grasslands does not require him to spend quite so much time in the field as his Survey work did, we are confident that he will find ways to get out there to listen for the first song of the Meadowlark in the spring and watch the fall afternoon shadows grow long across the varicolored canyons of the badlands.

The Survey's loss is the Dakota Prairie Grasslands' gain. Mark is a fine asset to his new employer and will undoubtedly be successful in his position as a program manager. We wish him luck in this, and all his future endeavors.

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### Twelfth Williston Basin Horizontal Well & Petroleum Conference Holiday Inn Riverside, Minot, North Dakota, May 2 – 4, 2004

The Twelfth Williston Basin Horizontal Well & Petroleum Conference will be held in Minot, North Dakota at the Holiday Inn Riverside, May 2-4, 2004. As you may know, Minot is where the first meeting of what has become a Williston Basin annual event was held in May of 1993. It was known then and for the following seven years as the International Williston Basin Horizontal Well Workshop. We are expecting three hundred to four hundred registrants at the upcoming 2004 conference.

Unlike most oil & gas conventions, where attendance is limited to a specific discipline, the Williston Basin Horizontal Well & Petroleum Conference is unique in that industry representatives from various educational backgrounds and specialty fields all participate. The conference concentrates on topics of interest to operators who are active, or would like to become active, in oil and gas development projects in the Basin on both sides of the international border. The Sunday night "ice breaker" is followed by an agenda of twenty-minute presentations on Monday and Tuesday. Ample time for examination of posters and industry displays as well as for individual discussions is available. An informal atmosphere for exchanging information and ideas, making contacts, and identifying future Williston Basin opportunities is strongly encouraged.

The workshop was initially envisioned as a vehicle to promote informal communication, discussion, and transfer of technology between Canadian and U.S. industry personnel specifically interested in horizontal well application in the Williston Basin. The North Dakota Geological Survey and the Saskatchewan Energy and Mines organized and sponsored the first workshop in Minot in May, 1993. Since these workshops began, implementation of horizontal well technology in exploration, exploitation, and enhanced recovery programs have become accepted practice within the Williston Basin. In 2001 the name of the meeting was changed from the International Williston Basin Horizontal Well Workshop to the Williston Basin Horizontal Well & Petroleum Conference to reflect the expanding scope of topics presented. Subjects of discussion are no longer limited to horizontal well application, but include new and evolving technology which has been, or could be applied to the exploitation, exploration, drilling, completion, or production of Williston Basin reservoirs; either to initiate economic production or to improve existing production.

Registration forms for the Twelfth Williston Basin Horizontal Well & Petroleum Conference should be available by mid-January 2004, either on the North Dakota Geological Survey website or by request.

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**John Hoganson appointed to the Bureau of Land Management's Dakotas Resource Advisory Council by Secretary of Interior, Gale A. Norton**

In September, 2003, John Hoganson was appointed to the Bureau of Land Management's Dakotas Resource Advisory Council by the Secretary of the Interior, Gale A. Norton. John will be a representative of the state regarding natural resource issues. The Dakotas Resource Advisory Council, which includes 15 appointed representatives from North and South Dakota, provides advice to the Secretary of the Interior through the Bureau of Land Management concerning the preparation, amendment, and implementation of land use plans. The Advisory Council also assists, in an advisory capacity, in establishing long-range plans and resource management priorities. The Advisory Council was established to encourage good stewardship and cooperation among state and federal agencies, permittees, and interested parties in the management of natural resources on public lands.

Three categories of interest are represented on the Advisory Council. Group 1 includes members that hold federal grazing permits or leases; those associated with transportation or rights-of-way; representatives of outdoor recreation activities; and those that represent commercial timber or energy and mineral development interests. Group 2 includes members that represent nationally or regionally recognized environmental organizations; dispersed recreational activities; archeological or historical interests; or nationally or regionally recognized with horse and burro interest groups. Group 3 includes persons who hold, state, county, or local elected offices; employees of state agencies responsible for the management of natural resources; representatives of Indian tribes; academicians in natural resource management or natural resources, or those that represent the public at large. John was appointed as a Group 3 representative. His appointment is for three years.

*On us who saw these phenomena for the first time, the impression made will not easily be forgotten. The palpable evidence presented to us, of one of the most extraordinary and important facts in the natural history of the earth, gave a reality and substance to those theoretical speculations, which, however probable, had never till now been directly authenticated by the testimony of the senses.*

John Playfair (1748-1819) British geologist, on his and James Hutton's first encounter with Siccar Point.