



Dakota Alliance

Volume 21, Issue 1

The Newsletter of the North Dakota Geographic Alliance

Spring 2013



Coordinators' Corner

The NDGA office continues to make every effort possible to reach out to all our members and interested folks in the state who are committed to "Speaking Up for Geography." During 2012 we held four professional development programs, worked with 4-H groups, increased our number of partnerships, participated in Geography Awareness activities, worked on the Strategic Plan and distributed many resources. We often get requests for classroom materials from our members. Please let us know if there is anything that we can do for you!!!

To learn more about your state Alliance and all others as well, you are invited to go to this website: <http://alliances.nationalgeographic.com/index.php>. Invite your colleagues and friends to do the same. If you would like to receive the National Geographic Education electronic newsletter, please check the appropriate box when you submit your information at this website. This National Geographic network of alliances for geographic education represents educators united to support geographic literacy.

As exemplified by NDGA Board President, Jeff Beck, the success geographic alliances depends upon teaching about our world and doing it well. We are seeing many teachers across all grade levels integrating geography into all areas of the curriculum including English Language Arts and Math. One of those elementary teachers is Brenda Mormon, Wahpeton educator who, as of this writing, will receive the 2012 North Dakota Teacher of the Year award this month. Dr. Douglas Munski will receive the Friend of Geography award. We are privileged to honor both of these dedicated educators.

The number of 2012 partnerships continues to grow. For example, the Summer Institute was co-sponsored by Prairie Public Education Services and the 2013 Institute NDGA will join the UND Geography Department and Dakota Science

Center. The Teacher Resource Coalition workshop partners are Knife River Indian Villages Historic Site, North Dakota Council on the Arts, the North Dakota Geographic Alliance, NDSU-Forest Service, North Dakota State University, and the State Historical Society of North Dakota. These partnerships allow all of us to demonstrate and distribute a wealth of the materials for teaching geography. Please know that you invited to share your work and/or experiences. Do not be afraid to 'toot your horn' or let us do it for you.

Distinguished Teaching Award National Council for Geographic Education



Jeff Beck with Eric Fournier, President of NCGE

Jeff Beck, educator at Minot High School, was honored at the National Council for Geographic Education (NCGE) annual conference in San Marcos, TX, October 5-8. NCGE recognizes K-12 teachers who have displayed continued dedication to geographic education, demonstrate effective teaching skills, leadership, professional-development accomplishments, involvement in student activities and development of innovative teaching materials and strategies. The Distinguished Teaching award honors those who have made extraordinary contributions to the teaching and learning of geography.

Jeff is a social studies teacher at Magic City High School, Minot, ND. He is a member of many professional organizations, is a workshop presenter for NDGA, the ND Economics Council, ND Lignite Council, board member of

the ND Ag in the Classroom program and is a Teacher Consultant for Cable in the Classroom magazine. Jeff has collaborated with several industries and organizations including the Lignite Council, to develop K-12 curriculum. As a member of the North Dakota Ag in the Classroom Council he works on strategies the ND Department of Agriculture uses to promote their industry in our state. Jeff has a vision for students and himself that reaches into the future of life-long learning. Reflecting the current trend in social studies education, Jeff's quest is to bring geography into the everyday lives of students. His International Relations classes bring places, people and culture to the classroom. His students understand the meaning of tolerance and respect and develop skills to be productive global citizens. His commitment, talent and energy for working with students, parents, colleagues and members of the community are admirable. He developed and piloted a summer tour workshop for teachers that focus on significant topics related to various regions of ND, highlighting its geography, agriculture and economy. Teachers from all grade levels and curriculum areas spend two days visiting key stakeholders in the ND economy. The past 10 years he has teamed with the ND Department of Agriculture's Ag in the Classroom program to help facilitate these tours. More than 500 North Dakota teachers have used this opportunity to obtain first-hand experience in learning about the state's geography, agriculture and economy.

Jeff says, "As a high school teacher it was disconcerting that my students were not more aware of the world around them. The primary goal of this type of field study is to provide teachers real-time experiences they can utilize and integrate into the curriculum. When one of those "teachable moments" occurs in their classroom they can reflect on personal knowledge and experience to better inform their students. Teachers that participate in the tour may experience sheering sheep, milking cows, as well as observe the cattle to market process. They see farms and ranches around the state and visit with the people who provide goods and services that make our state unique. We visit key economic and resource centers such as coalmines, oil wells, electric plants, agricultural equipment manufacturers, sales rooms, and repair shops. Tour participants receive a DVD of photos and movie clips taken by the tour videographer that is intended for classroom use."

Jeff is a long-time member of the North Dakota Geographic Alliance (NDGA) and presently serves as chairman of the Board of Directors. He is a member of the NDGA Strategic Planning Team and has been a dynamic leader and expert guide in designing long-term goals to raise the level of geographic literacy throughout ND classrooms.

Marilyn Weiser, North Dakota Geographic Alliance Coordinator, stated that Jeff's efforts in the classroom, his work with colleagues and his support of quality professional development have made a difference in education. He has provided the leadership and energetic promotion of geographic literacy that has made him a respected leader of social studies education in ND."



Wahpeton Educator Selected for Prestigious Outstanding ND Geography Teacher Award



Brenda Morman and Marilyn Weiser

The North Dakota Geographic Alliance recently announced Brenda Maus Morman, who teaches Grade 1 at Central Elementary in Wahpeton, as the winner of the 2012 Warren Kress Outstanding Geography Teacher Award. Well known as an outstanding teacher and advocate for the study of geography and an active community member, she was honored February 6 at a Central Elementary program. "My students love to find places on the map and globe. So, I integrate geography into my daily teaching and help students explore maps and globe," Morman said. "During writing activities, I may ask 'Where could your story take place besides Wahpeton?' My students learn about cultural geography by celebrating the Chinese New Year, Thanksgiving, St. Patrick's Day, and Christmas around the world and through units that use maps to take a trip to Alaska and to places where penguins live." Morman's 34-year career includes teaching in North Dakota schools, South Dakota and Minnesota. She earned a Bachelor of Science in elementary education from Minot State University. Later, she received a Master of Education in reading with an emphasis in storytelling from East Tennessee State University.

While attending Minot State, the five-hour drive to Morman's hometown of Golva made it impossible for her to go home every weekend. She often went home with friends, and she remembers her mom saying, "What a great opportunity to see how other families live and do things." Morman realized later that was probably her first experience of geography, including human life and the effects of human activity, outside a textbook. This led to Morman's deep understanding that cultural geography can be experienced 10 miles away, 10,000 miles away or across the road, eating lefse at the neighbors.

A life-long learner, Morman enjoys travel and professional development that provides opportunities to see how other people live and do things in ways affected by habitat and resources available to them. She uses this knowledge and experience with her students so they develop world-

mindedness and become geographically literate. “Whether we are hearing a story about goats in Africa, singing ‘I Like Potatoes’ and learning about the potato famine that brought Irish families to America or writing to our adopted soldier in Iraq or Afghanistan, daily opportunities are available to experience geography in the classroom,” said Morman.

Morman has completed a variety of programs sponsored by NDGA. In addition, she received the Who’s Who Among America’s Teachers Award in 2004-2005 and 2005-2006 and the N.D. Reading Council Literary Award. She was also the N.D. Ag in the Classroom recipient and attended the National Ag in the Classroom Conference. She has presented at several reading and speech conferences at the state level; she is a member of many national, state and local professional organizations.

The Warren Kress Outstanding Geography Teacher Award, which was established with contributions from the Kress family and NDGA members, honors the life of Warren Kress, a long-time North Dakota State University faculty member. While at NDSU, Kress actively taught and advised students and helped found the College of University Studies and the Council of Latin American Geographers.

2012 GeoFIT Workshop



Sue Helberg from Cyrus, MN (photo by Barb Schwarz)

The North Dakota Forest Service and North Dakota Geographic Alliance partnered to deliver their fifth Geographically FIT (Forestry Institute for Teachers) in 2012. A total of 26 teachers participated in the broad-learning experience covering four days in south central North Dakota.

Participants toured the south central section of the state. The four-day traveling tour began at the high school in Jamestown. After the opening morning sessions, the participants began their adventure boarding a “classroom on wheels” and headed for the Scenic Backway with step-on presenter Tex Weatherly, a retired natural resource professional from the area. When travelers descended into the James River Valley, saw the panorama of a winding river surrounded by tall grass prairie and wildflowers. This area is rich in geological and Indian

history, earthen mounds, early settlement and scenic beauty. Dr. Markel (left photo) explains how the geology of the area was formed, which resulted in the natural resources found in this unique area.

John Wishek, Wishek, ND talked about McIntosh County Highlights, a book his grandmother wrote about settlement in this area. Participants learned about economic and environmental changes in the county over long- and short-periods of time, and the resulting “highlights” in the area. He also covered the role and influence the Wishek family played in the community and county as well as patterns of change in transportation, housing, energy and technology. Wishek Steel and Manufacturing plant was founded in 1969 by Harley and Carol Brandner as a welding, repair, and custom manufacturing shop. With the invention of the infamous “Wishek Disc” that building and business has expanded several times over the years to accommodate the increased business. Today, they make primary tillage equipment, including chisel plows, field cultivators, and the Wishek Disc. Many of their products set the standard for the entire industry. They hire local folks and have a huge impact on the growing economy of the area. They sell tillage equipment from Hawaii to California, from Oregon to Ohio, and from Texas to Canada, and many countries overseas!

Participants visited Lawrence Welk’s farmstead near Strasburg. Teachers learned more about the background of a young man from North Dakota who made it big musically by having his own show on national TV for many years. We visited the beautiful historic cathedral in Strasburg, and learned much more about the area from one of the workshop participants who grew up in that area - Al Dosch. The trip contributed much for those teaching and integrating North Dakota Studies.

The second day at Long Lake National Wildlife Refuge, Ed Meendering, Deputy Project Leader, introduced the educators to the National Wildlife Refuge System lands and increased their knowledge of migratory birds, endangered species, prairie wetland and grassland habitat, and habitat management methods. We visited various sites and a former prescribed burn area to improve habitat. Jackie Jacobson and staff concluded our tour by providing educational resource materials, which teachers can utilize with their students to increase and quiz their knowledge of waterfowl, wildlife and habitats.

At General Sibley Park, Maure Sand of the US Forest Service-Dakota Prairies National Grasslands talked about Hazardous Fuels Reduction in the Wildland Urban Interface. The park was inundated by flooding last year and hundreds of large trees were killed or blown over by high winds. This material was stockpiled and later chipped with a grinder purchased by the City of Bismarck with grant funds from the North Dakota Forest Service. Our next stop was to see where the chips from this hazardous fuels reduction project in the park were utilized by the city, keeping the wood waste out of the landfill and extending its life by twenty years.

The new Aquatics and Wellness Center built by the City of Bismarck on Bismarck State College (BSC) land where wood chips heat a boiler that warms an Olympic-sized pool and the entire building. This is the second public building in the city heated by woody biomass.

A highlight for all was the opportunity to get a private showing of Dakota, one of the most complete fossilized

dinosaurs, and learn how to cast molds of animal tracks and plaster jackets to transport dinosaur bones at the ND State Historical Society with Erik Holland, Curator of Education. Unlike the collections of bones found in museums, this hadrosaur came complete with skin, ligaments, tendons and some internal organs.



Erick Holland, ND Heritage Center (photo by Barb Schwarz)

At the Tesoro Oil Refinery in Mandan, Ron Day narrated a driving tour of the refinery. It concluded with a stop in the conference room and a PowerPoint session called "Refining 101." The refinery began in 1954 and today employs 250 people and has a capacity of 58,000 barrels per day. It processes only sweet crude oil from North Dakota. It manufactures gasoline, diesel fuel, jet fuel, heavy fuel oils and liquefied petroleum gas.

The next stop was the Northern Great Plains Research Lab in Mandan, which was celebrating its centennial. The Laboratory was established by Congress on August 8, 1912, to respond to the needs of farmers and ranchers of the Northern Plains. Research began in 1914 on vegetables, shrubs, ornamentals, berries, fruits, wheat, flax, forages, grazing management, windbreaks and forestry.

Dr. Cannayen gave a presentation on their study of biomass and new products. Cannayen's goal is to develop and adapt knowledge and technologies that focus on engineering and management of agricultural and biological systems and related environmental resources, and to ensure continued growth and development of faculty and the profession through the conduct of strong interdisciplinary research programs.

Dr. Phillips visited with us about Ecosystem Biogeochemistry. The biogeochemistry of the earth has become an increasingly important topic for educators, as more and more evidence points to the impacts of human activities on natural processes. The teachers learned about tracing carbon and nitrogen through agricultural ecosystems, particularly with respect to trace gases that trap long-wave radiation in the atmosphere.

The next stop was at the Pebble Creek Golf Course to visit the Hay Creek watershed with Jim Collins, Jr., from the ND Department of Health - Water Quality Division. He gave an overview of the design and function of features to improve water quality as it flows through an urban watershed. At the Gabe Brown Ranch participants learned how the ecosystem is influenced by factors such as soil, climate, water, air, wildlife and human activities. The Browns practice Holistic Management, a part of which is farming and ranching in nature's image. They strive to solve problems in a natural and sustainable way. This resulted in increased production, profit and a higher quality of life. We then traveled to Crystal Springs Bible Camp. As we travel to our next destinations, our "step-on" guides provide pertinent information. Dr. Clark Markell, retired MSU geology Professor, had several sessions where he interpreted the landscape, talking about the geology and geography in the area.

The last day, we headed to the Pipestem Reservoir, managed by the US Army Corp of Engineers, north of Jamestown. Bob Martin, long-time manager, provided a tour and information on the mission of Corps property. The reservoir is designed for flood prevention and protection, recreation, education and management of the natural ecosystem. This area offers a variety of recreational opportunities such as fishing, hunting, hiking, picnicking, etc.

At Fort Seward, which overlooks the community forest of Jamestown in the river valley was the site City Forester, Vern Quam, who explained the urgency of understanding the diversity and benefits trees create for communities. They are dynamic ecosystems that provide environmental services by cleaning air and water; helping to control storm water; providing wildlife habitat, and conserving energy. They add form, structure, beauty, reduce noise; and add economic value, too. To get started, you need a tree inventory. Teachers can make a tree-mendous contribution by teaching their students how to identify trees, properly plant trees, and understand why they are important. Large potted trees were given to teachers in a drawing to take home.

The workshop ended back at the Jamestown High School for a lunch followed by some debriefing, a post-test, and the completion of a participation survey. It was a great week with wonderful weather for the participants and instructors.



A total of 26 participants took part in the 2012 Geographically FIT (Forestry Institute for Teachers), which was a broad-learning experience covering four days in south central North Dakota



2013 Geographically FIT
“Forestry Institute for Teachers”
August 5-8, 2013

Broad-based Learning Experience for K-12
Traveling Tour of West Central North Dakota



- ❖ Four-day traveling tour/field trip with lodging, charter bus transportation, and noon meals provided
- ❖ "Adventure of a lifetime" will begin at Hazen High School and ends in Hazen
- ❖ Explore places that put ND on the map while learning about geography, geology, and forestry of the region
- ❖ Experience and appreciate the unique character and qualities of the people in our state
- ❖ Enjoy the breath-taking beauty of west central North Dakota in our classroom on wheels
- ❖ Visit the Lewis and Clark and Fort Mandan Center, as well as Fort Stevenson
- ❖ Learn how Native Americans utilized their forestry resources at Knife River Indian Villages National Historic Site
- ❖ Understand the benefits of forestry management, and fire and hazardous fuels reduction at the historic Smith Grove Cottonwoods and Cross Ranch State Park
- ❖ Learn about the wildlife and different habitats of ND at Audubon Wildlife Refuge and the Garrison Fish Hatchery
- ❖ Visit the fifth-largest earthen dam in the world on the Missouri River and its Power Plant
- ❖ Tour of Great Plains Synfuels Plant and Freedom Mine near Beulah
- ❖ Expand your network of colleagues who are valuable resources in the job of educating our children.
- ❖ Lodging for three nights is provided. You may request a roommate or we will assign two people to a hotel room. Bring your own water bottle to refill, binoculars, digital camera and light snacks for the bus.

REGISTRATION INSTRUCTIONS:

Total cost is \$200. Please send a \$100 class fee to the NDGA. Either include the information below or email it to marilyn.weiser@gmail.com

A \$100 fee for 2 credits from MSU ED 500, NDSU ED 600 or UND GEOG 900 (S/U) will be submitted with your online registration (online registration sites will be forthcoming).

Name:
 Home Address, City, State, Zip:
 Home Phone Number:
 School Name:
 School Phone:

Cell Phone Number:
 Grade Level and Discipline:
 Requested Roommate:
 University Choice for Credit:

Prior to registration, check with your local REA, school district or local Soil Conservation District for possible reimbursement or assistance with the costs. A minimum of 25 by July 1st is required to hold the class and the maximum accepted is 50. Casual Dress.

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2012 Teacher Resource Coalition “Community: A Sense of Place”



TRC participants

The evidence is in, My Dear Watson. Or rather the evidence is in, Mr. Super. Joe Super, science teacher from Minot, was a just one of the presenters, of the Teacher Resource Coalition held in Minot in June. He took participants on a walk along the Souris River. “Evidence from Space: Minot in Flood” was the topic of the tour. Joe took participants on the Souris River after the 2011 flood. Teachers learned how local watershed is incorporated into any curriculum. They used this process following a program called **River Watch**. The objective of his session is to identify ways to use local watersheds in the social science curriculum. The second objective was learning about the Souris River as it went through the changes in the time of the recent flood. The third objective was North Dakota Waters’ impact on other watersheds and the oceans. The coalition sessions were an exploration of how current events, cultural and physical changes impact and change our sense of place and community. Participants connected practical teaching and learning activities by combining history, geography, forestry, technology, photography, and bookmarking.

The North Dakota Teacher Resource Coalition Members include Knife River Indian Villages, North Dakota Council on the Arts, the North Dakota Geographic Alliance, NDSU-Forest Service, North Dakota State University, and the State Historical Society of North Dakota. These organizations provided professional development and resources for educators in PreK-12 classrooms.



TRC workshop participants at Roosevelt Zoo

A community is often described as a **sense of place** that for various reasons takes on special meaning to people. The various speakers from each of the coalition membership shared evidence of community through their presentations. Rebecca Engleman, Arts in Education Director, shared “Book Making” and the need to collect evidence. Erik

Holland, SHSND, spoke to the group about “How Historians Think”. “Evidence in the Trees” was shared by Glenda Fauske-Project Learning Tree. Krystal Thomas, from the Theodore Roosevelt Digital Library, gave information regarding digital primary resource evidence. “Blogging: collecting and creating evidence” was presented by Kim Owen, Advanced Application Coordinator from NDSU. Knife River Indians Villages and other members participated in guided field experiences.

Students love to be detectives. This workshop served as a means for teachers to learn ways to “collect evidence and data” to use in their areas of expertise. Active and enthusiastic participation, using hands-on learning labs, provided the participants with a wealth of materials to enhance teaching in their respective schools and communities.

World Traveler, Kim Schultz

Kim Schultz, a native of Carpio, ND, teaches Grade 6 at Will-Moore Elementary in Bismarck, ND. During his 19-year teaching career, Kim also taught at Dorothy Moses in Bismarck. He received a BS in Education from Minot State University and a BS in Agriculture, with an emphasis in horticulture, from North Dakota State University. He has been involved in Geography Club, International Club, and Arlis Saxon Eco-Kids. He has participated in international educator exchanges in various Asian countries.

Kim was raised on a small, but diverse farm near Carpio, in north-central North Dakota. During fourth grade he discovered maps/geography, and has never stopped discovering. In fact, Geography was the very first class in which he enrolled in college, eventually graduating with a horticulture degree from NDSU. Kim spent the first 15 years in that profession before heading back to college for an elementary education degree. When he entered the teaching profession (grade 6) he quickly gravitated toward social studies as his favorite subject. It soon became apparent that there was a tremendous lack of geography within the curriculum, not only at his grade level but all of elementary. Kim became determined not to let his students leave in May without exposing them to as much geography as possible and still holds true to that curriculum.

Opportunities soon arose to travel abroad as an educator and horticulturalist. These travels, to about a dozen countries, have greatly influenced Kim’s perception of how geography can be incorporated, and created in him a love of cultural geography which he has embedded into his world history lessons. It was on one of these trips that Kim learned about State Geographic Alliances, and quickly joined. In 2008, he traveled to Washington, D.C., as a guest of National Geographic to become trained as a state coordinator of Geography Awareness Week, a position he currently retains. Within the past decade Kim has become an official with the State Geography Bee, began a Geography Club at his school for students hungry for geography, and had a daughter and a 6th grade student testify at the State Capitol for geography education. For 18 consecutive years his school has had a winner qualify for the State Geography Bee, with former students taking 8th, 4th and 1st over the years.

Kim was honored as the Warren Kress Outstanding Geography Teacher Award in 2010. Kim’s experience and background will add vast knowledge to the NDGA board.



UND GEOGRAPHY

2013 ND Geographic Alliance SUMMER INSTITUTE in partnership with the Dakota Science Center and the Geography Department of the University of North Dakota

June 2-7, 2013, University of North Dakota, Grand Forks, ND

The Kaleidoscope of North Dakota's Region

Event happening on the "East Coast" of North Dakota and the Devils Lake Basin

North Dakota is a kaleidoscope of interconnected regions. We will be exploring them from the local perspective through the international perspective and putting The Peace Garden State into the world picture through to understand human-environment interaction.

- **Lodging** (Provided gratis in Swanson Hall, University of North Dakota—an air conditioned residence hall and conveniently located to the primary classrooms for the workshop) and meals provided.
- **Experience** excursions to Turtle River State Park, Fort Totten Cavalry Square and the Devils Lake Region.
- **Explore** the spatial nature of physical geography, human geography, and regional geography in the context of GIS/GPS technologies while learning about the NEW National Geography Standards (2nd Ed., 2012), and how geography is integrative for the Common Core Curriculum in all disciplines.
- **Discuss** the impact of population change in the economy, communities, and schools of North Dakota.
- **Hands-on** experience with regional and global topics, their environmental impact, and integration into the classroom setting.
- **Expand** your network of colleagues who are valuable resources in the job of educating students interact with academic geographers and professional geographers in a research university setting.
- **Experience and appreciate** the unique character and qualities of the multi-cultural dimensions of North Dakota.
- **Enjoy** the geographic spirit of adventure in the Red River Valley of North.

REGISTRATION INSTRUCTIONS:

Total cost is \$200. Please send a \$50 class fee to the NDGA. Either include the information below or email it to marilyn.weiser@gmail.com

A \$150 fee for 3 credits from MSU ED 500, NDSU ED 600 or UND GEOG 900 (S/U) will be submitted with your online registration (online registration sites will be forthcoming).

Name:
 Home Address, City, State, Zip:
 Home Phone Number:
 School Name:
 School Phone:

Cell Phone Number:
 Grade Level and Discipline:
 Requested Roommate:
 University Choice for Credit:

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Upcoming Events:

- Alliance Summer Geography Institute - June 4-8-Grand Forks-3 credits
- Teacher Resource Coalition Workshop - June 26-27-Valley City-2 credits
- Ag Tour - Minot-in July, Details and Dates TBA-1 credit
- Geo-FIT - West Central ND- August 5-8, Hazen - 2 credits

Today is a good day to consider contributing to the Dakota Alliance by writing a note or an article for the next newsletter. If it promotes geographic education, we are interested in it. News, reviews of materials, thoughts on current topics, and any other items that might be of interest are to be encouraged. We also hope to increase the number of lesson plans. Please send us one that you have found successful. If you would like to submit an article or lesson plan for review for the *Dakota Alliance*, please send it to marilyn.weiser@minotstateu.edu in Word format with photos in JPEG format.

Thank you to those who assisted with the production of this issue. We value your thoughts and ideas.

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NDGA Board Member Re-Elected

Angie Milakovic, a native of Strasburg, ND, is assistant professor at Bismarck State College. She has been coordinator and instructor of Geographic Information Systems since 2006. She has worked at NAVTeq Inc. She also managed the ND State 4-H Youth Geospatial Technology between the years 2001-2005. Her educational background consists of a BS in Geography from UND and a MS in National Resources Management from North Dakota State University. iGETT is the Integrated Geospatial Education Technology Training for teachers where we learned how to incorporate GIS/GPS and Remote Sensing into our geography curriculums at the high school and 2-year community college level. Here is a website to check it out: <http://igettdelmar.edu/>

Growing up on a dairy and small grains farm near Strasburg, ND was the basis for Angie's interest in geography, agriculture, and natural resources. "I always wondered, 'why' and 'how' about the world around me, so it seems I've always been a geographer without the official university title!" Digitizing road networks and moats around castles in Europe for NAVteq Inc. was Angie's first job in geography. NAVteq is a Chicago-based provider of Geographic Information Systems (GIS) data and is a major provider of base electronic navigable maps. The company is a wholly owned subsidiary of Nokia but operates independently. Angie is married to a geographer (Stewart) who is also a UND Geography graduate. They have a daughter, Kara, who is 2 years old. They live in Mandan and enjoy spending time with family and friends when not traveling around the country exploring new places.

Angie is committed to geography education and her presence on the board of NDGA will continue to enhance the interest of geographic educational efforts in North Dakota and the nation as a whole.

Kathy Rooke Appointed to Fill Vacant Board Position

Kathy Rooke, principal at Northridge Elementary School in Bismarck has been appointed as a general member of the Board of Directors. She served a 5-year term as a teacher member and will replace Dr. Johnny Coomansingh as a general member.

Kathy has a Master's Degree in Elementary Administration, and elementary reading and elementary principal's credentials. Her employment with the Bismarck Public School District began in 1990 as a Reading Specialist at Pioneer and Prairie Rose Elementary Schools. Prior to teaching for the Bismarck District, Kathy taught kindergarten at Zion Lutheran Kindergarten in Bismarck, second grade in Max, ND, and elementary music and Title I reading, language, and math in Wilton, ND. She has worked on many teams and committees during her teaching career. Kathy presently serves on the Bismarck Public School Response to Intervention Team, Assessment Committee, and the superintendent's District Communication Internal Committee. She is also a member of the North Dakota State Reading First Team. She has been a curriculum writer in the areas of social studies, mathematics, and language arts. Kathy is a consultant for the Department of Public

Instruction and has assisted with the development of the North Dakota English Arts Standards and Benchmarks, and the writing of state reading and writing tests. She has also worked with North Dakota Bookmark Standard Setting in reading. Kathy is trained in Integrated Thematic Instruction and uses it extensively within her classroom. Kathy and her husband, Chris have two married children and two grandchildren.

2012 NDGA Ag Tour

The 2012 Ag in the classroom teacher tour dealt with the subject "Do oil and farming mix?" or what impact does the states oil industry have on farming?

Twenty five teachers visited northwest North Dakota cities and farms trying to find an answer to that question. During the two day tour teachers were able to visit with the stake holders on both sides of that issue. Visits were made to farms and business.

This teacher tour is made possible with grants from the North Dakota Department of Agriculture Ag in the Classroom and the NDGA. This program has been going on for more than ten years. The emphasis of the program is to get all types of educators to better understand the important relationships that farming has created in our state.

Teachers were able to visit a "man camp", family farms, government officials and even a 4-H achievement days to help them find out the answer.

Most participants found the answer to be fairly positive. The relationships that have developed in oil country are still going thorough growing pains.

The high salaries and demand created for all products has caused the area to become a financial gold mine.

Participants visited Bakken Central-the Cenex station in Stanley and learned that they lead all convenience stores in the world in sales of snickers bars, beef jerky and hot stuff pizza!

But workers are hard to come by so wages need to become more competitive.

Area farmers have been able to lease their land for oil exploration but oil exploration has led to over use of area roads making travel from farm to field and into town treacherous at times.

In most cases people in oil country have learned to take the good with the bad. One of the most important geographic lessons everyone has to learn is how to share resources in a manner that benefits everyone. People in the Bakken are still working on this!

Planning for the 2013 tour will begin shortly. If you would like to be part of the tour or on the planning team contact the NDGA office.

The new NDGA website at www.ndgeographic.org/ is under construction! Please keep checking it for updates and news.

**2012 Summer Institute:
The Changing Face of North**

Dakota



*Maxine Trotter presenting at NDGA Summer Institute
(photo by Norma Mahler)*

What would it be like to be dropped into the middle of oil country? Teachers were given the opportunity to experience it June 4-8 of 2012. The influx of trucks in the throes of traffic to the western end of our state leaves one wondering what the future will hold. The roads are in need of repair and the infrastructure of the area has vastly changed.

So what is good about it? **There is money to be made in them there hills.** There are more **students** in the small schools. Schools that were on the brink of closing their doors are now in need of expansion. New **businesses** have begun with a wealth of **jobs** for those who were out of work. There is an influx of **people** from all over the world. The opportunity to meet and greet people gives North Dakota the good fortune to show its hospitality.

The 'face' of North Dakota is changing rapidly with the expansion of our prairie energy industry. The North Dakota Geographic Alliance and Prairie Public Education Services sponsored the Summer Geography Institute in the Dickinson area. The focus of the workshop was on current topics and specific impacts the energy industry has on advancements in technology, green energy, and the economy of North Dakota as well as the impact on our environment, communities, schools, and children. Attendees of this institute explored how educators and other professionals teach the regional and global issues of energy use, their environmental impact and how these topics can be easily integrated into all areas of the curriculum. These events are happening in our backyard launching North Dakota into the global marketplace.

There was wealth of information over the four-day workshop. Comments on some of the highlights from the participants:

- Need for the legislature to keep up with the changes
- Putting CO² back into the ground for long-term storage
- Having your eyes opened to what it really takes to drill for oil
- Learning of the many jobs in the oil industry
- Public policies impacting the rivers and the oceans
- Energy industry and its impact on the environment of North Dakota
- Changing look at the Heritage Center

-Learning to value different personal value systems and approaches
-Relating the people, the land, and the language
How do we relate to all these changes? What is the responsibility of those living in North Dakota? It is important for we as educators to understand what is happening in the western part of our state. We are a force in educating our people. **Get involved. Be informed.** The North Dakota Geographic Alliance workshops are stepping stones to learning of the geography of our state. Partners who sponsored this Institute were the North Dakota Geographic Alliance, Prairie Public Education Services, Plains Carbon Dioxide Reduction Partnership, Environmental & Energy Research Center at the University of North Dakota, Dickinson State University, North Dakota Humanities Council, State Historical Society of North Dakota and the NDStudies.org regional website. Hands on experiences strengthen our practical teaching and learning activities.



*Distinguished panel discussing geographic changes in western North Dakota. Left to right: Daryl Dukart, Representative Kenton Onstad, Dr. Becky Pitkin, Riley Mattson, and Dr. Wayne Sanstead.
(photo by Norma Mahler)*

Announcing the 2013 Teacher Resource Coalition Workshop, June 26-27, Valley City, for 2 credits: "ND Wars: The Civil War and the Cold War"

Based at Valley City State University on June 26-28, we will model lessons, protocols and the strength of field experiences to help you develop learning opportunities. By combining history, geography, and environmental studies in a learning cohort we will exchange ideas, approaches and experiences to strengthen our practical teaching and learning activities.

This professional development opportunity will demonstrate team teaching, interdisciplinary curriculum development and implementation and the use of art and technology in strategies that engage students in

meaningful activities. Participants will also become familiar with resources, tools, and information available through NDTRC and its members. For details about registration contact Erik Holland, teacher of record and Curator of Education with the State Historical Society of North Dakota at eholland@nd.gov or 701-328-2792.

Joe Super - Arctic Explorer



Joe Super

Joe Super is an environmentally active teacher at Central High School in Minot, North Dakota. He has passionately taught riparian monitoring in his classroom for 15 years, getting more than 400 students outside to monitor health in local waterways. His students also assist the North Dakota Game and Fish Department by monitoring dissolved oxygen fish kills under the ice in local rivers and lakes.

WASHINGTON (April 9, 2013)—Fourteen highly respected educators have been selected as this year's Lindblad Expeditions National Geographic Grosvenor Teacher Fellows and will spend part of their summer in the Arctic aboard the Lindblad expedition ship National Geographic Explorer. The Fellows program recognizes teachers who best demonstrate excellence in geographic education, and provides an opportunity for them to experience geography through once-in-a-lifetime experiences and to use those experiences in their classrooms.

This is the seventh year of the Fellows program, established to honor former National Geographic Society Chairman Gilbert M. Grosvenor's lifetime commitment to geographic education. Cabin space aboard the National Geographic Explorer was donated in perpetuity to the National Geographic Society by Sven-Olof Lindblad and Lindblad Expeditions to mark Grosvenor's 75th birthday in 2006 and to honor his service in enhancing and improving geographic education across the United States. Additional support for the 2013 program is provided by Google and the Children and Nature Network as well as private funders. Each year, K-12 educators from around the country are encouraged to apply for this one-of-a-kind professional development opportunity, with the object of enhancing their geographic learning through direct experience, so they can bring that knowledge back to their classrooms and lesson plans.

The 2013 Grosvenor Teacher Fellows:

Amy Lake is a middle school social studies teacher at Lee H. Kellogg School in Falls Village, Conn., who infuses geographic concepts and skills into her daily lessons. For

nearly 30 years, she has empowered students to be involved citizens, acting on their learning to benefit their community and wider world. A 2010 Fulbright Fellow, Lake's experiential classroom is featured in the documentary film "Passion to Teach," to be released this fall.

Ally Amavisca is the programs coordinator for the Phoenix Zoo. Through a wide range of formal and informal hands-on education programs, she uses the zoo as a classroom, teaching children and families to care about the natural world. Her paper "Establishing the Ideal Platform for Creating Environmental Stewards: A Study of Multiage Grouping in Zoo Education" was presented at the 2012 Association of Zoos & Aquariums National Conference.

Yolanda Barham is a first-grade teacher at Millbrook Elementary Magnet School in Raleigh, N.C., who uses trips abroad to integrate global issues with units of study. She recently traveled with The Center for International Understanding to explore sustainable energy practices in Denmark. She is a new member of the North Carolina Geographic Alliance.

Betsy Wilkening is a middle school science and engineering/robotics teacher at Wilson K-8 School in Tucson, Ariz. Her students learn to think and act locally and globally to make a positive impact on the environment. She is a PolarTREC teacher from 2009 and is helping to continue the outreach legacy of the International Polar Year as a council member of the newly formed Polar Educators International. Her favorite animal is a narwhal, and she is extremely excited to share this opportunity of a possible sighting.

Crystal Thiele is a National Board Certified fifth-grade teacher at PS 321 in Brooklyn, N.Y., who uses a multidisciplinary, hands-on approach to expanding her students' view of the world. Previously she taught world studies and science for nine years at the middle school level and ESL for two years in Yamaguchi, Japan.

Susan Pike is an environmental sciences and biology teacher at St. Thomas Aquinas High School in Dover, N.H., who pursues her goal of connecting people with nature by writing a weekly nature column for local newspapers and offering her students opportunities to get outside through field research, winter survival classes and hikes in the nearby White Mountains.

Dr. Rona Zollinger integrates inquiry, problem-solving and play into an exploration of the places students live and learn about. Zollinger teaches in a transdisciplinary curriculum at Vicente Martinez High School in Martinez, Calif., in an environmental and health careers academy called New Leaf: A Sustainable Living Collaborative. As co-founder of New Leaf, she seeks to build community partnerships that link learning to hands-on experience. She is a part of the Children and Nature Network's "Natural Teachers Network."

Lishawna Taylor is a sixth-grade science teacher at Central International School in Kokomo, Ind., who enjoys bringing science to life and empowering students to leave a positive impact on their world.

Bill Schmoker teaches Earth science at Centennial Middle School in Boulder, Colo., and was selected as a PolarTREC teacher in 2010. His enthusiasm for Earth sciences is matched by his dedication to field ornithology and bird photography. His Arctic attraction began with a cross-

continental camping trip from Denver to Prudhoe Bay, Alaska, the summer after his high school graduation.

Suzanne Kahn Eder is education director at the Wells National Estuarine Research Reserve in Wells, Maine. She oversees the Reserve's teacher workshops, public programs, school field trips, camps, exhibits and trailside interpretation. A former National Park Service ranger and a currently registered Maine Kayaking Guide, she delights in sharing the wonders of the natural world with others through field-based education.

Matt Eddy is a biology and environmental science teacher at Georgetown Day School in Washington, D.C. His courses focus on the interaction between urban and rural landscapes in the greater D.C. area. He also serves as a manuscript reviewer for American Biology Teacher magazine.

Meghan Swanson is an environmental science and physiology teacher at Calabasas High School in Calabasas, Calif. She has developed a project-based environmental biology course to provide students with knowledge of the ecological challenges presented in the face of a growing global population. She recently received Ecology Project International's Marine Education Fellowship for furthering conservation education.

Joe Super is an environmentally active biology teacher at Central High School in Minot, N.D. He has passionately taught riparian monitoring in his classroom for 15 years, getting more than 400 students outside to monitor health in local waterways. His students also assist the North Dakota Game and Fish Department by monitoring dissolved oxygen fish kills under the ice in local rivers and lakes.

Charles Dabritz is a middle school teacher in Milton, VT., where he teaches both social studies and language arts. He is a six-year member of the Vermont Geographic Alliance and serves as a steering committee member.

The Fellows will travel this summer on six separate, in-depth expeditions to such locations as Arctic Svalbard, Iceland, Greenland and the Canadian High Arctic. They will experience landscapes, wildlife, and cultures unique to these parts of the world, including the midnight sun and formidable glaciers as well as polar bears, walruses, and whales. Led by expert Lindblad-National Geographic expedition teams including a National Geographic photographer and an undersea specialist, the Fellows will gain a wealth of knowledge to develop activities for their classrooms and to share with professional colleagues on returning home. Prior to the expedition, the 2013 Grosvenor Teacher Fellows will travel to Washington, D.C., to participate in a pre-voyage workshop with hands-on sessions for learning photography, using Google tools to share their stories and networking with previous Fellows to maximize their experience.

"This program recognizes outstanding educators for their commitment to improving geographic literacy and inspiring tomorrow's leaders to be responsible caretakers of our ocean and our planet," said Sven-Olof Lindblad, founder of Lindblad Expeditions. "We are delighted that these educators will journey to the Arctic with us, and we are proud to support a group of Fellows who are so strongly committed to hands-on geographic education."

"This partnership between Lindblad Expeditions and National Geographic ideally combines our two missions," said John Fahey, chairman of the National Geographic Society and the National Geographic Education Foundation. "We believe in

the value of educational travel as well as an understanding of geography and the world around us. Lindblad's programs are the best, and Fellows will have experiences they will never forget, which will prepare them to continue inspiring generations of young people."

To learn more about this opportunity and to watch video of Grosvenor Teacher Fellows from previous years, visit <http://www.natgeoed.org/gtf>. To become more involved in geography education, contact your State Geographic Alliance at <http://alliances.nationalgeographic.com/>. Lindblad Expeditions and National Geographic have joined in a mission-driven alliance to inspire people to explore and care about the planet. As pioneers of global exploration, the organizations work in tandem to produce innovative marine expedition programs and to promote conservation and sustainable tourism around the world, as well as to improve geographic education and geo-literacy. The partnership's educationally oriented voyages allow guests to interact with leading scientists, naturalists and researchers while discovering stunning natural environments, above and below the sea, through state-of-the-art exploration tools. A joint philanthropic fund that supports science and conservation groups enables better understanding of the world's remaining special places and fosters the dissemination of geographic knowledge around the globe. Lindblad Expeditions and National Geographic Education have also partnered to create the Grosvenor Teacher Fellow program, a field-based professional development opportunity that recognizes educators for their commitment to geography education.

(Courtesy of the National Geographic Society.)



Previous Lindblad Expedition (photo from NGS website)