Geology Department Newsletter

GRAND VALLEY STATE UNIVERSITY
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"Educating students to shape their lives, their professions, and their societies"

March 2011

Dear Alums,

It has been a year of shifting faces within the Geology Department. After three years of admirable and dedicated service to the department, **Steve Mattox** passed the department head baton to me. I want to thank Steve for his leadership and the time and energy he gave to the department.

We have had four faculty members on sabbatical during this academic year. **Peter Wampler**, on full-year leave, spent a month in the field in Oregon last summer and is soon heading to Haiti to conduct water quality research. He also helped to establish a GVSU Scholarship endowment aimed at supporting Haitian students to attend GVSU. **John Weber**, also on full-year leave, taught field experiences in the summer through YBRA and in Azerbaijan, traveled to Idaho and Washington in the fall and is living and conducting research in Slovenia this semester. John also received the *GVSU CSCE Distinguished Undergraduate Mentor Award* for 2010. **Pat Videtich** was on leave last fall and spent the time working on a manuscript, and **Kevin Cole** is on leave this semester out in Washington working on problems related to slope movement.

In order to cover our classes, both **Linda Davis** and **Lindsey Waddell** stayed on as visiting faculty members. Last summer Linda received a NASA-funded post-doctoral position in California and continues aspects of that project with students. Lindsey's husband Jack was hired as a visiting faculty member by the Physics department and so they are now both living in Grand Rapids. We hired an additional visiting faculty member this year, **Michael McRivette**, who came to us from a visiting position at Albion College, where he has also taught the field camp. **Kelly Heid** continues as an adjunct faculty member, teaching GEO 111 labs. Kelly is also working to complete a Master's Degree in Geoscience Education, which should be done after a field experience in the Bahamas this summer. In addition, we had several new adjuncts last fall: **Megan Seitz**, who taught GEO 100, recently finished her Ph.D. at Michigan State University, **Lon Cooper**, who also taught GEO 100, is an environmental geologist working on his dissertation at MSU, and **Matthew Ludwig**, who taught SCI 225, is finishing his dissertation at WMU.

We also experienced a change in the responsibilities of our office staff. Previously, **Linda Noel** and **Janet Potgeter** both served the Geology and Physics programs as office coordinator and part time secretary, respectively. Increasing demands on the office staff led to a promotion for Janet, so that she is now the full time office coordinator for Geology. She is doing a great job keeping us organized and on track. Linda is the coordinator for Physics.

The fall geomorphology class after reaching the top of Green Mountain, a large parabolic dune (photo by P. Colgan).

I would also like to highlight just a few of the many accomplishments of the faculty remaining in the department. **Patrick Colgan** mentored two students funded by Michigan Space Grant Fellowships and one McNair Scholar in projects that culminated in three GSA poster presentations. **Larry Fegel** was awarded the *2010 College of Education Outstanding Educator Award*. **Pablo Llerandi-Román** mentored a student funded by a Michigan Space Grant Fellowship as part of a new collaborative research program in Puerto Rico with **Bill Neal** and external colleagues. **Steve Mattox** received an NSF planning grant to build pre-college geology talent across the state. **Figen Mekik** mentored a student toward publication and a poster presentation at AGU with funding from NSF. In addition she was awarded the *Outstanding Faculty Service Award for the College of Liberal Arts and Sciences* in 2010. **Heather Miller** had one article published and one accepted in peer-reviewed science education journals. **Ginny Peterson** became a *GSA Fellow* in 2010 and received the *GSA Education Division Distinguished Service Award* for 2010. **Peter Riemersma** organized both the Earth Science Week lecture series in October and the Department Chili Cook Off and has been the chair of the University Faculty Teaching and Learning Center committee. *Letter continued on the next page…*

"*Grand Valley State University is a public institution with a local, regional, and state commitment, and a global perspective. We are dedicated to providing our students with the highest quality undergraduate and graduate education.* "

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By our most recent count we had 22 students graduate from the department last year and are on track for a record 25 graduates this year. A high percentage of our graduates have been successful in finding good matches for graduate school or employment. We have another large class in mineralogy/petrology this year, suggesting that our numbers of graduates should remain high.

We have started what we hope will be an end-of semester tradition of a departmental research and awards symposium to highlight, share, and acknowledge student and faculty scholarship and awards and to celebrate graduates before they leave us. Our first symposium was a success. We mingled during a poster session with 10 different posters presented during the semester at professional meetings (mostly by student authors) and were updated on the research of **Pablo Llerandi-Roman** and **Figen Mekik** in short informative talks. We also noted awards during the past semester and gave out some silly senior awards to those leaving us. Our symposium this semester will be on the afternoon of April 18, 2011 and will have a stronger focus on student scholarships and awards. We welcome any of you to come and join us for this event. We will have more details about specific time and place as the date nears.

As you know from my letter in December of last year, we were excited that our newest endowment fund, the ***Norman and Helen Gibson Geology Field Study Scholarship***, reached the endowed level and we are looking forward to giving our first awards from that fund this year. We still hope to see the fund grow so that the level of the scholarship and the number of students impacted continues to grow. The response to my request for commitments to a new fund (in honor of **Dick Lefebvre**) to support field trips was very heartening and I am happy to report that we have the green light to establish the ***Richard H. Lefebvre Field Education Fund***. This fund will help us to maintain our commitment to quality field trips while keeping the cost to students down. We welcome your donations to any of our endowed funds as they all make a positive impact on our students. We now have an arrangement with the University development office so that we can be notified of your gifts to departmental funds.

The department has a significant task ahead. We are due to complete a self-study and assessment of strategic goals. We anticipate that this will result in a visit by external evaluators. In preparation we will host a visiting assessment workshop in May, coordinated by the Science Education Resource Center (SERC) through their *Building Strong Geoscience Departments Program*. We hope to take a good look at what we do well and areas where we can better serve our students.

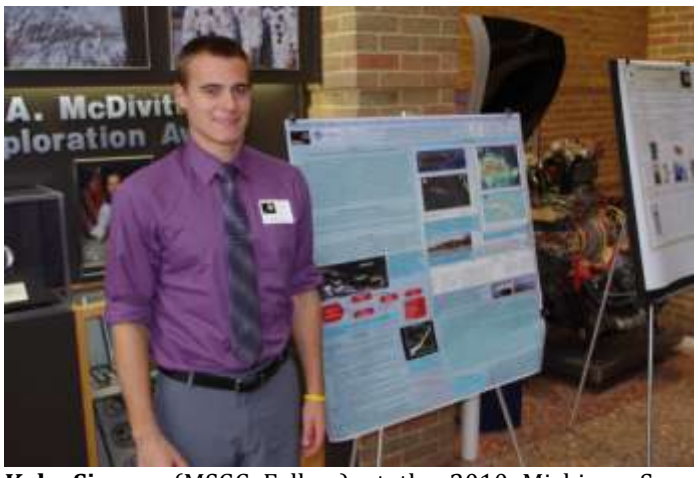
We are also looking to improve our recruitment of majors and would welcome your participation. We would like to construct some posters and short postings on our web page that highlight our alums with short descriptions about what you do, what training and skills have best served you and perhaps a photo showing you in action at your job. It would be interesting to see the range of directions that our graduates have taken and would help broaden the perspectives of our majors and potential majors. If you would be interested in sharing, please let us know by contacting me.

For the first time this year we participated officially in the alumni events at the GSA meeting in Denver as part of the Group Alumni Event, where faculty and current students enjoyed the chance to catch up with alumni from across several years (see photo later in the newsletter p. 14). We also enjoyed seeing some of you last year as you visited west Michigan and stopped into the department. If any of you plan to be in the vicinity of GVSU, please let us know. We would love to see you or hear from you.

My best wishes for 2011!
Ginny Peterson

Department Faculty and Staff

Ginny Peterson - Associate Professor & Chair
Kevin Cole – Associate Professor
Patrick Colgan – Associate Professor
Lon Cooper – Adjunct Instructor
Linda Davis – Visiting Assistant Professor
Larry Fegel - Affiliate Faculty
Kelly Heid – Adjunct Instructor
Tom Hendrix – Emeritus Professor
Pablo Llerandi-Román – Assistant Professor
Matthew Ludwig – Adjunct Instructor
Steve Mattox –Associate Professor
Figen Mekik – Associate Professor
Michael McRivette – Visiting Assistant Professor
Heather Miller – Assistant Professor
Bill Neal – Emeritus Professor
Peter Riemersma – Associate Professor
Megan Seitz – Adjunct Instructor
Norm TenBrink – Emeritus Professor
Patricia Videtich – Professor
Lindsey Waddell – Visiting Assistant Professor
Peter Wampler – Associate Professor
John Weber – Professor
Greg Wilson – Instructor & Lab Coordinator
Janet Potgeter – Department Office Coordinator



Kyle Siemer (MSGC Fellow) at the 2010 Michigan Space Grant Consortium Conference at the University of Michigan (photo by P. Colgan).

Please consider a gift to one of our departmental scholarship funds. When giving to GVSU, please specify a specific fund or give to the Geology Development Endowment Fund which is used for special needs in the department such as matching funds for equipment or visiting speakers.

A Brief History of the GVSU Department of Geology (1963-2010)

By Pat Videtich

The first president of Grand Valley State College, **James H. Zumberge**, was a well known, glacial geologist. (See the article by Pat Colgan in the 2010 Geology Newsletter.) He was on the faculty in the Geological Sciences Department at the University of Michigan before coming to GVSC. While serving as President of GVSC from 1962-1968 he published a lab book for physical geology, several papers and book chapters, and reviewed a number of books. In addition, Zumberge is listed as a member of the GVSC Geology Department in the 1966-67 and 1967-68-69 catalogues, although there is no evidence that he actually taught any courses. After leaving GVSC he held several administrative positions, among them President of Southern Methodist University and the University of Southern California (USC). But he also stayed active in geology and served as an administrator for large-scale, polar research programs. Besides Zumberge Library and Zumberge Pond on the GVSU campus, a science hall at USC and Cape Zumberge and Zumberge Coast in Antarctica are named after him. Zumberge died in 1992 at the age of 68.

In 1963 Zumberge recruited geomorphologist and oceanographer **John (Johnny) B. Lucke** to build a Geology Department at GVSC. Lucke had been State Geologist of Connecticut and Zumberge hired him out of retirement. Zumberge knew Lucke from Geological Society of America Meetings and through correspondence about geomorphology during the 1950s. Lucke had also established the Geology and Geography Department at the University of Connecticut, so Zumberge probably thought Lucke was well suited to build another department! Interestingly, UConn has a scholarship fund for students named the *John B. Lucke Award for Outstanding Geology Majors*.

Johnny Lucke was one of the more colorful faculty members in the department's short history. He had obtained all three of his degrees at Princeton University, so he enjoyed attending social functions dressed in a one-piece, orange and black, tiger suit in honor of his beloved Princeton Tigers. Lucke was known to drink a bit on occasion, and **Bill Neal** likes to tell the story of one of those instances. At a party hosted by **Dick** and **Sandy Lefebvre**, Johnny laughed so hard at his own joke that, as he threw his arms way back behind him, the bench upon which he was seated went over backwards throwing Johnny on his back along with a couple of faculty wives. No serious injuries resulted.

Lucke was very proud of GVSC and the department he had founded, and justly so. He was a major force in the department until his retirement in 1973 at which time he became GVSC's first Professor Emeritus. After retirement, Johnny invited me to visit him at his retirement home on Cape Cod as I was about to begin attending graduate school nearby. Throughout the entire weekend he introduced me to all we met with the same words, "This is **Patty Videtich**, my last advisee at Grand Valley". I could tell that everyone Johnny knew, friends and acquaintances alike, had heard all about Johnny's beloved GVSC because none of them needed to ask, "What is Grand Valley?" They obviously had all heard about GVSC many times. And on the Cape, like in Allendale, Johnny was still a colorful fellow as he tooled about dressed very flamboyantly in a flowered shirt and red plaid pants! In 1982 Johnny died on Cape Cod at the age of 74.

John Lucke is listed as the sole professor in the GVSC Geology Department in the 1965-1966 catalogue, along with 13 geology courses! He was a busy guy! That catalogue was the first to list geology as a major. The major required Physical Geology, Historical Geology, Advanced Mineralogy (Elementary Mineralogy was a listed course, but apparently not required), Petrology, Paleontology, and any other four courses. Physical Geology (currently GEO 111) had two, two-hour-long labs a week as did Historical Geology (currently GEO 112). The catalogue indicates that the only cognate courses required were a year of chemistry, although a year of physics, math (though calculus), and biology were recommended. The following year only one term of chemistry was required, although a second term was strongly recommended.

Of course, there were fewer sections of general education courses in the early days, but still a significant number of courses were offered each year considering the paucity of faculty members. For example, during the 1966-67 academic year 12 different courses were offered: Principles of Geology, Physical Geology, Historical Geology, Rocks and Minerals, Mineralogy, Petrology, Stratigraphy, Geomorphology, Structural Geology, Paleontology, Oceanography, and Seminar. Plus, only Lucke and Zumberge were listed as geology faculty in the college catalogue, and Zumberge taught no courses! Needless to say, Lucke alone could not teach all those courses. From 1965-1967 he had help from Assistant Professor **Norbert O'Hara,** who taught Mineralogy, Petrology, Rocks and Minerals, and, apparently, Oceanography.

Much needed assistance arrived in 1967 when **Dick Lefebvre** became resident hard rock petrologist and volcanologist. This is the first of many examples of the old adage, "geology is a small world", because, as an undergraduate student, Dick had had Zumberge's Glacial Geology course at the University of Michigan! **John MacTavish** was hired in 1968 to teach Stratigraphy and Paleontology, but in 1971 he left to become a faculty member of GVSC's William James College. **Jack Henderson** arrived to teach Structural Geology in 1970. Dick and Jack had overlapped in their graduate school days at Northwestern University, and Dick gave Jack a call to see if he would be interested in the position. Plus, Jack, for a short time, had shared an office with the department's new sedimentologist, **Bill Neal**, while they both held post doctoral positions at McMaster University. After their post docs at McMaster, Jack obtained a post doc position at Texas, and Bill went to teach at Georgia Southern. But the two were back together again (but not sharing an office!) when Bill arrived at GVSC in 1971. John Lucke's replacement was **Norm Ten Brink**, a geomorphologist/glacial geologist, who was hired in 1973. These four faculty members formed the core of the department for several years, but, importantly, geochemist **Ed Tremba** taught in the department from 1974 to 1978. Ed not only inspired many GV geology alums from that era to become geology majors, but he also helped initiate the scholarship fund that was named in his honor, the *Edward Tremba Geology Scholarship Fund*. The fund was the department's first endowed fund and Tremba Scholarships have helped numerous geology and earth science majors pay for their education. Jack Henderson left GVSC in 1977 to take a position at the Canadian Geological

Survey. In 1978 Jack was replaced by **Tom Hendrix**, who had taught for many years at Indiana University.

From the late 1970s until 1989 the tenure track, geology faculty consisted of Lefebvre, Neal, Ten Brink, and Hendrix. For one year (1980-1981) **Gary Jacobs** taught geochemistry, but the position was not a tenured one, and it was lost during one of Michigan's economic crises. Expansion for that hard-fought-for, fifth position finally came in 1989 with the addition of **Kevin Cole**, who was hired to teach Geohydrology, although for a time he also taught Geophysics, Geochemistry, Geomathematics, Mineralogy, and introductory courses! That year, 1989, was the beginning of a rapidly changing faculty as replacements were hired for retiring faculty and the department expanded in size. These "new" tenure-track faculty include alum **Patty Videtich** (1992, geochemistry; expansion), **John Weber** (1995, structural; replacement for Tom Hendrix, 1995 retirement), **Ben Edwards**, (1998, hard rock petrology; replacement for Dick Lefebvre, 1998 retirement), **Steve Mattox** (1998, geoscience education and volcanology; expansion and replacement for the K-12 half of Dick Lefebvre!), **Peter Riemersma** (1999, geohydrology; expansion), Figen Mekik (2000, climate change; expansion); Angela Hessler (2002, geoscience education; expansion), **Pat Colgan** (2003, geomorphology/glacial; replacement for Norm Ten Brink, 2004 retirement), alum **Ginny Peterson** (2003, hard rock petrology; replacement for Ben Edwards, who left in 2002 for Dickenson College); **Peter Wampler** (2004, fluvial geomorphologist; "replacement" for Bill Neal, 2005 retirement); **Pablo Llerandi-Román** (2007; replacement for **Angela Hessler**, who left in 2006 for Chevron); and **Heather Miller** (2009, geoscience education; expansion).

Besides eleven tenure track faculty, the department also has three other permanent positions. Alum **Greg Wilson's** official title is "Lab Supervisor", but he also teaches honors geology and introductory geology courses at least half time. Greg began teaching at GVSU as an Adjunct Professor in 1988 prior to being hired permanently in 1994. Alum **Larry Fegel**, who came to GVSU following a career as a K-12 teacher and administrator, was hired as an Affiliate Faculty member in 2001. Larry primarily teaches courses for general education students and pre-service teachers and is very involved in K-12 outreach. Beginning fall 2010, and for the first time in our history, the department has our own Office Coordinator, **Janet Potgeter**. Janet began working for both Geology and Physics in a permanent, part-time capacity in 2003. Prior to fall 2010 we shared office staff with Physics with **Linda Noel** most recently serving as Office Coordinator. (Linda now works fulltime for Physics.) Prior to Linda, **Mary Ann Bramer** (with assistance from **Bev Tramper** late in Mary Ann's tenure) managed the front office. Finally, for many years early on in the history of the department, **Bette Weerstra** served as the sole office staff for Geology and Physics. The faculty, past and present, and hundreds of alums and students owe a debt of gratitude to all the office staff for keeping the department running smoothly over the years!

So, after being a department with four, tenure-track faculty for much of its history, in 20 years the Geology Department expanded from four to eleven tenure-track positions, plus two additional, permanent, teaching staff members! Plus, most semesters much needed and appreciated help is provided by typically two, but currently three, visiting faculty and two adjunct faculty members. Most of the expansion of the department is due to increased numbers of students taking geology courses to fulfill general education requirements, both at the introductory and upper (i.e., theme course) levels, and increased demands for teaching pre- and in-service teachers. For example, starting in 2003 the department has played an important role in the Integrated Science major, a new major mandated by the State of Michigan for future K-8 teachers that replaced the Group Science major. The students in Integrated Science take three earth science courses, courses largely taught by Heather, Larry, Pablo, and Steve. We also have considerably more Geology and Earth Science majors than we did in the "old days" with currently 96 declared majors in Geology, Earth Science, and Geology-Chemistry. And we are proud to say we have approximately 520 Geology/Earth Science/Geology-Chemistry/Group Science (Geology Emphasis) alums and about 200 Integrated Science alums! If Johnny Lucke could only see us now!

Graduates over the years 1968 to 2010

The Department of Geology has produced more than 520 graduates between 1968-2010 in Geology, Geochemistry, Group Science/Geology, and Earth Science majors.

1968 – 1	**1980 – 9**	**1992 – 7**	**2004 – 28**
1969 – 5	**1981 – 11**	**1993 – 16**	**2005 – 19**
1970 – 7	**1982 – 16**	**1994 – 13**	**2006 – 22**
1971 – 2	**1983 – 6**	**1995 – 16**	**2007 – 19**
1972 – 5	**1984 – 6**	**1996 – 12**	**2008 – 18**
1973 – 14	**1985 – 6**	**1997 - 23**	**2009 – 17**
1974 – 9	**1986 – 9**	**1998 – 13**	**2010 - 22**
1975 – 11	**1987 – 8**	**1999 – 15**	
1976 – 7	**1988 – 6**	**2000 – 15**	
1977 – 14	**1989 – 7**	**2001 – 23**	
1978 – 11	**1990 – 6**	**2002 – 26**	
1979 – 12	**1991 – 4**	**2003 – 24**	

Approximately 341 Geology/Geochemistry degrees, 98 Group Science, and 72 Earth Science degrees have been awarded from 1968 to 2010.

December graduates **Mary Russo** and **Alex Villhauer** with Ginny Peterson and Steve Mattox (Photo by S. Mattox).

2010 Graduates

We are very proud to present an excellent crop of new geoscientists to help build a better world! We hope to have even more graduates coming next year!

B.S. Geology

James Bennet	**Catherine Carlise**
Elizabeth Carr	**Ross Cudney**
Sarah Detloff	**Andrew DeWitt**
Alex Frye	**Steven Holzworth**
Kevin Kane	**Phillip Kenroy**
Kelvin Kostner	**Ben Matzke**
Christine McWain	**Mallory Morrel**
Nathan Noll	**Ester Posner**
Mary Russo	**Noah Sluiter**
Alex Villhauer	**Austin Westhuis**

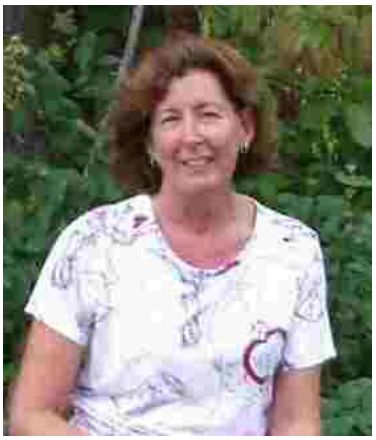
B.S. Earth Science

Sydney Cook	**Adam Jorgensen**

Mallory Morell (B.S. Geology) and **Ashley Vandenburg (B.S. Earth Science)** were named outstanding undergraduate majors in the department. Students had to have a GPA higher than 3.5 to qualify for this award.

Currently there are 74 Geology & Geochemistry majors, 8 minors, and 18 Earth Science majors, and 30 minors. There are 194 students in the Integrated Science Program (pre-service teachers).

2010 Faculty and Staff News



Janet Potgeter our Department office coordinator.

Janet Potgeter (potgetej@gvsu.edu) - "Hello Geology alumni and friends. I have been on the GVSU Allendale campus for the better part of 20 years, working for Facilities Services, the Counseling and Career Development Center, and finally the Geology Department. During my early years on campus, I attended classes at GV, and then finished my B.S. in Management and Organizational Development at Spring Arbor U. during a three-year leave from the Allendale area. I live in Allendale with my husband of 31 years and our two high schoolers, **Molly** and **Troy**. Of course, our lives revolve around the kids activities for now, but I don't think we could be having more fun doing anything else. My interests are golf, walking, swimming, gardening and cooking. We love the outdoors and are fortunate to be able to spend time exploring on our farm that is just a couple of miles north of the campus. Much of our farm land is in the Grand River flood plain which produces many interesting fossils and rocks. Since I have always been fascinated by rocks, minerals and fossils, it is my good luck that brought me to work for the Geology department and the great faculty here. And, like the faculty, I enjoy hearing news from all of you. I hope this newsletter finds you content."

Bill Neal (nealw@gvsu.edu) "The past year has been a good mix of family, travel, and professional activity. I enjoyed seeing a few alumni at the regional GSA meeting in Branson, MO, and the trip included visiting old Mizzou as well as some geology stops in the southern part of the state. During the summer **Mary** and I traveled to Nova Scotia and Prince Edward Island with our daughter Jean and grandson Joe, including numerous geology stops; a highly recommended area for a visit. Then we enjoyed two weeks with our California family, daughter **Heather** and granddaughters Marisa and Mariah, on their visit to Michigan. Especially nice, since daughter **Julie** now lives here so we had a genuine family reunion. I made the long flight to Adelaide, Australia, with my colleague Orrin Pilkey, and presented a couple of posters at the meeting. Shortly after returning, we were off to Texas for a nephew's wedding, and then some travel including the Llano-Uplift hill country. Most of my writing/editing effort has been on the continued production of the World Beaches book due out in May of this year (Univ. of California Press). The Hawaii book was finally published (see publications listed elsewhere in newsletter). I continue to enjoy working with colleague Pablo Llerandi-Roman and GVSU student **Kyle Siemer** and associates in Georgia on a Puerto Rico study, which will carry us into the coming year in terms of projects. We were sorry not to make the GSA meeting in Denver this year and missing out on visiting with alums, so will try and make up for that at this year's GSA in Minneapolis. Someone owes me a beer. We will be at the SE GSA meeting in Wilmington, NC, in March if any of you are planning to attend (lots of good coastal papers in the program). In the meantime, my granddaughter Mary is now a Junior at GVSU which is a reminder that age is trying to catch up with me. Cheers to all."

Kevin Cole (colek@gvsu.edu) – "Year 2010 was a busy year. In the spring I enjoyed teaching Geo 100 & 111 on the DeVos campus. I kept in shape lugging rocks back and forth between my office and downtown. I spent time working on the Geo 211 mineral collection. Greg Wilson and I spent time preparing for the Science Olympiad and also worked on the Miller Collection. After spring classes concluded we headed west for our annual pilgrimage to visit mountains, along with **Susan**, **Rachel** (currently a Jr. at Reed College), **Sean** (a high school Sr. who plans on attending Whitman College next Fall).

We explored some new areas in Wyoming for potential field trip opportunities. While on a boat in Alaska I continued collecting information on landslides which is the subject of my sabbatical research. We spent 3 weeks hiking in the Canadian Rockies collecting water samples, fossils and rock specimens for the Department. We visited the usual sites from the Canadian Rockies Field Trip and reconnoitered a few more. This fall we had a bumper crop of Mineralogy students-26!! We had to add extra chairs to the rooms to accommodate the crowd. Greg Wilson and Peter Wampler accompanied us to Bancroft this year where we had relatively good weather and lots of great collecting. Winter 2011 I am on sabbatical in the Pacific Northwest studying landslide movements using a terrestrial topographic scanner, aerial and satellite photos which I hope to continue on the GVSU's campus."

Patrick Colgan (colganp@gvsu.edu) – "This past year was a good one for working on undergraduate research with three of our excellent geology majors. I worked with seniors **Kent Walters** and **Elizabeth Koeman** who both received summer fellowships from the Michigan Space Grant Consortium (NASA). Each worked on projects to explore how much organic carbon is stored in stream sediments. I also worked with **Nate Hansen** who is a McNair Scholar this year. Nate is studying the relationship between landscape position and the distribution of archeological sites in the lower Grand River Valley in Ottawa County. All of these projects should lead to peer-reviewed articles in the future. I also taught my usual two sections of geomorphology, a section of intro geology, and engineering geology to 10 students. This is the second time I taught engineering geology and this will a formal course the next time I teach it in 2012. Kelly Heid and I were able this summer, to take the dogs up north to the U.P. for a week in a quiet cabin on Lake Michigan. I spent some time fossil collecting and painting watercolors of a lighthouse and a rocky shore platform. I started doing my dialysis treatments at home this year. It has really given me and Kelly more freedom than in the past when I had to go to a center 3 times a week. Hopefully we will be able to take more road trips. One of my goals this coming summer is to get back out west to the mountains. Hope 2011 is a great year for everyone!"

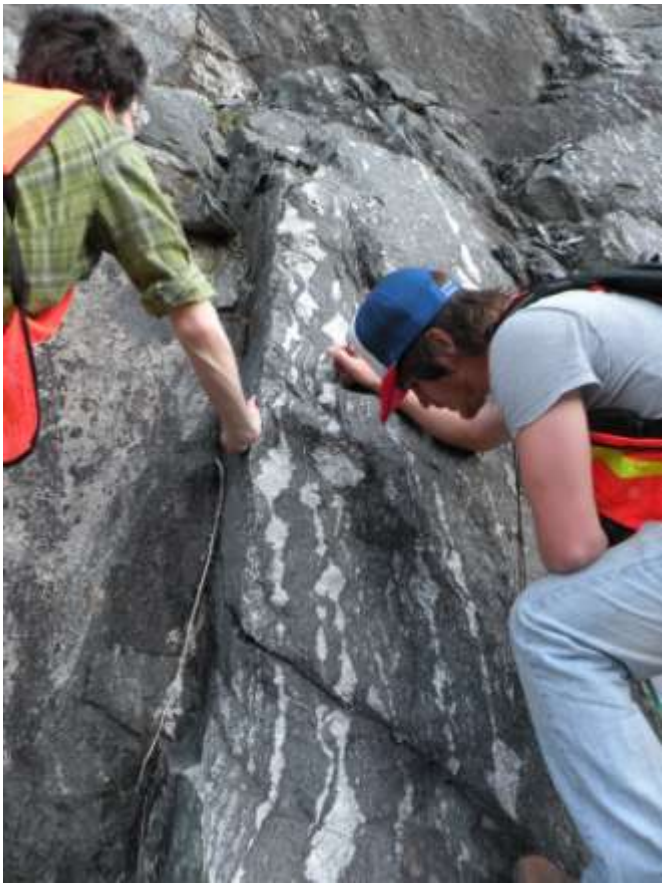
Linda Davis (davisll@gvsu.edu) **–** "I taught numerous large sections of Environmental Geology and Exploring Earth this year. It is really a pleasure to get to interact with so many students from so many different majors in general education classes: so many bring fresh perspectives to my teaching and to geology. I certainly learn a great deal from them. I started using the "personal response systems" a.k.a., clickers, in these classes. The level of engagement in the classes definitely went up, and my challenge now is to continue to learn new ways to ask questions during lectures that enhance learning rather than check to see who's done the reading. My research on mantle-derived alkalic rocks in the western U.S. proceeds apace with the help of 4 students: **Austin Westhuis**, **Kyle Eno**, **Bruce Shultz**, and **Jim Buzzell**. Austin helped with the Ar-Ar age determinations obtained at New Mexico Tech with Bill McIntosh's team and isotope lab. Kyle E., Bruce, and Jim are working on finding innovative ways to find the igneous intrusions older than 26 Ma: trace element signatures, spectral analysis using ASTER data from the Terra satellite, and dike orientation. **Kyle Siemer** and I are almost finished with our work that has helped the southern Kent County landfill find a way to inhibit the precipitation of Bio-rock that has proved to be a very costly clogging problem in their drainage system. It turns out that clinoptilolite, a zeolite mineral, is very effective at cation exchange, i.e., able to filter out the abundant Ca in the landfill leachate. Now, it's down to engineering a system to use it. This is my last year here as a Visiting Assistant Professor: I have learned many valuable lessons regarding teaching while here at GVSU. The faculty are extraordinarily student-centered, in comparison to the six other universities where I have taught. I wish I could stay! My work with the Association for Women Geoscientists Foundation continues to be demanding and important. I am transferring all of our bookkeeping into Quickbooks, keeping up with writing the checks for the numerous scholarships and programs to encourage leadership in the geosciences. Keep a lookout for our upcoming membership drive (AWG) and large-scale fund-raising campaign."

Larry Fegel (fegell@gvsu.edu) **–** Larry continues to teach classes both for the Integrated Science majors as well as general education classes in geology.

Integrated science and geology students at a lead mine in Missouri (photo by P. Llerandi-Román).

Kelly Heid (heidk@gvsu.edu) – "You will still find me happily teaching Geo111 labs for the department. Along with teaching labs I completed six more courses towards my Masters in Geosciences Education at Mississippi State University. I spent my spare time this year brushing up on meteorology, historical geology, oceanography, climatology, environmental geology and planetary science. I am happy to report that my brain is still firing on all cylinders and most of the cobwebs have been cleared out. If all goes well I will have the final three courses and the research project completed this summer. I'm really looking forward to my last class which is a two-week field methods course held at the end of June on the island of San Salvador, Bahamas. Pat and the dogs have been very patient these past two years. I know they will

be extremely happy when I no longer have my head buried in a book or spend all my time tied to the computer."



Sam Howard and **Matt Boike** examining migmatites on the Petrology class field trip in winter 2010 (photo by V. Peterson).

Pablo Llerandi-Román (llerandp@gvsu.edu) – "Last year was full of personal and professional satisfaction. The highlight at the personal level was the birth of our son **Sebastián Alejandro** Llerandi-Soto and the visit of my parents (Miriam parents and my brothers visited us in 2009). Miriam, Yulaiza, Katsí and I are exhilarated and grateful for having Sebastián at home. **Miriam** is now a Breastfeeding Peer Counselor for the Kent County Health Department and is also working in a progressive NGO promoting a healthy life and quality education for kids, go Miriam! **Yulaiza** and **Katsí** continue bringing joy and pride to our family with their school achievements and delightful presence (and wise opinions) in everything we do. At the professional level, I taught in the field with my classes GEO 319, GEO 202, and GEO 315. I lead field trips to the Ozarks (we visited a lead mine 1,200 ft underground), Mammoth Cave, and Grand Ledge (with Ginny Peterson). I also visited the Upper Peninsula with Peter Riemersma, Larry Fegel, and Heather Miller in preparation for a GEO 201 summer field course designed by Riemersma and Fegel. In addition, I continued the collaboration with several colleagues in other institutions. One of these projects is an investigation on coastal geology, sea level change, and coastal science education with Bill Neal (GVSU), Dave Bush (Univ. of West Georgia), and Chester Jackson (Georgia Southern) as part of our grant with the Univ. of Puerto Rico (UPR) Sea Grant Program. **Kyle Siemer**, GVSU geology major, visited Puerto Rico with me in January 2011 to participate in the first field campaign of our project (just in time to avoid some Michigan snow). In the summer of 2011, I will be leading a series of coastal science education workshops in Puerto Rico and the U.S. Virgin Islands. Another professional highlight is that most of the geologic map data collected during my M.S. at the UPR is finally taking the form of a paper to be submitted soon to the GSA Bulletin. I am collaborating with Drs. Daniel Laó-Dávila (Oklahoma State) and Tom Anderson (Univ. of Pittsburg) in this project. Finally, I accepted the invitation to be part of the organizing committees for the 2012 National Science Teachers Association national meeting in Indianapolis and the 2013 GSA Southeastern section meeting in Puerto Rico. ¡Hasta la próxima!"

Steve Mattox (mattoxs@gvsu.edu) – "As always, time with students was the greatest reward this year. **Stacy Schipper** presented her work at the National Science Teachers Association meeting in Philadelphia and published her paper in NSTA's ScienceScope. Geology major, **Katie Carlisle**, completed her study of paleomagnetic study of inflated pahoehoe in Hawaii (with the help of Pat Colgan at GVSU and Ken Hon of UH-Hilo) and presented her results at the GSA in Anaheim. Stephanie Standriff is observing in a grade 1-3 Montessori classroom in Grand Rapids Public Schools (GRPS) to see why the students do so well on state science exams (and to improve our teacher preparation programs). With NSF support, **Sandi Rutherford**, of Eastern Michigan University, and I are working on building a framework to elevate literacy and diversity in Earth Science in Michigan. Sandi is contacting high schools with diverse students to establish and new, challenging classes and support the teachers. I am designing a credit by exam so that these high school students can earn college credit for their work. I have agreements from EMU, GVSU, LSSU, MTU, and Hope College to award credit for the exam (and I'm working on more). We have requested funds to implement the program. I continue to work with Michigan Tech University in the summer on their project to increase the skills of Earth Science teachers in GRPS. I was delighted to see Larry Fegel receive the GVSU College of Education Alumni Award, John Weber the first ever GVSU Distinguished Undergraduate Mentoring Award, Figen Mekik the CLAS faculty service award and Ginny Peterson being recognized as a fellow of the Geological Society of America. "

Figen Mekik (mekikf@gvsu.edu) – "Dear students, parents, friends and colleagues, 2010 was a blast! Personally, I reconnected with an old friend who used to be a professor in our department, Angela Hessler, and we started working on creative writing projects together. I lost over 30 pounds, I am working hard on improving my tennis, learning to make some mean deserts, and of course dancing, dancing, dancing…. On the research front, my students and I made huge strides in our work on ocean regulation of atmospheric pCO_2. The highlight of the year as far as productivity goes for me is that **Nathan Noll**, **Mary Russo** and I published a paper in *Earth and Planetary Science Letters* about our calcite dissolution proxy. This is a first publication for both students in a peer-reviewed journal. Also, Mary and I went to the annual meeting of the American Geophysical Union in San

Francisco. Mary presented her poster there and I gave a talk. We both came back ready to write our respective papers and submit them to journal soon. Another highlight of the year for me was the Paleo-Ocean Acidification workshop I attended on Catalina Island off the coast of Los Angeles. It was a lot of great science, but it was also a lot of diving, swimming and, curiously, dancing! Unfortunately, I also have friends who suffered major injuries and illness this past year. Hopefully all are doing better now, but I know it is an uphill battle for them. I admire their courage and strength of character in dealing with their various challenges with poise and a positive attitude. It goes to show that life is VERY short and we need to make the best out of every moment and live it to the utmost. I wish everyone just that for the New Year. Enjoy life to the fullest with health and enthusiasm. Don't delay writing that paper. Don't leave for another day eating that high-calorie scrumptious dish. Don't hesitate one second in telling friends and family how valuable they are to you. And by all means students, finish school! There is so much to do out there! Happy 2011!"

Mick McRivette (mcrivetm@gvsu.edu) – "I joined the Geology Department for the 2010 fall term as a visitor and have greatly enjoyed my time at Grand Valley so far. After an active summer teaching field camp for Albion College (MI) in northwest Wyoming and a trip to the Canadian Rockies, I arrived refreshed for the new school year. I was kept busy from the start with two sections of Exploring the Earth; having only taught at Albion before coming to GVSU, the class sizes required a bit of an adjustment, but the students were wonderful and I had a blast. I especially enjoyed becoming familiar with some of the local geologic gems, including the excellent outdoor laboratories that are the GVSU ravines and, of course, the gypsum mine. I also had to adjust to my new commute from Albion (110 miles each way) and have discovered the joy of audio books! While the fall was great, I am even more excited for the 2011 winter term as I am teaching two courses that are new to me (and at opposite ends of the geology course spectrum): Environmental Geology and Global Tectonics. I have really enjoyed getting to know some of the department's senior students in the latter course – what a great group of future geoscientists! Teaching Global Tectonics has also given me the opportunity to finally teach material that is closest to my own research interests. I am in the final stages of completing my dissertation examining continental deformation in the central and northern regions of the Tibetan Plateau in response to the collision of India and Asia, so teaching Global Tectonics will be a great opportunity to bring some of my own experiences into the classroom. In addition to working on publishing my doctoral research in the upcoming months, I am collaborating with my wife **Carrie**, a petrologist/geochemist, on an analysis of structures associated with the exhumation of ultra-high pressure rocks, also in China, and hope to present our results at this year's GSA Fall Meeting. I have also maintained my affiliation with Albion College as their field camp director and will be returning to Wyoming this summer to scout a handful of brand new projects. All in all, an enjoyable and eventful year, and I'm very happy being at GVSU is such a large part of it."

Heather Miller (millerhea@gvsu.edu) **– "**Howdy! I cannot believe another year has flown by and I am in my second year here. In 2009 I continued to teach SCI 225, a science course for non-science elementary education majors focused on climate and climate change. I enjoy the challenge that the class brings not only to the students but me as well. I was also able to teach GEO 103, Oceans in the fall. As a class, we enjoyed exploring Spring Lake, the Grand River, and Lake Michigan on the D.J. Angus where students took water, sediment, and biological samples for data analysis and scientific exploration of the Grand River water shed. We were also able to take a trip to Rosy Mound Natural Area outside of Grand Haven to experience and explore the dune forest and shoreline processes. Their favorite part seemed to be throwing oranges into the water to calculate the longshore current. They also enjoyed exploring the beach through different eyes now that they had a better understanding of the shoreline processes. This past summer, Larry Fegel**,** Peter Riemersma, Pablo Llerandi-Román**,** and I visited the Upper Peninsula to work on the development of a field guide and field activities for the summer field trip Larry and Peter ran to the UP. This was my first trip to the UP and I was stunned at the beauty of Lake Superior and the surrounding geologic settings. I am excited and look forward to taking future field trips with my family and students to the area. This past year, I have represented the Geology Department in my involvement with the the W.K. Kellogg-Woodrow Wilson Teaching Fellowship at GVSU. GVSU is one of six Michigan universities chosen to participate in this innovative program to prepare science and mathematics secondary teachers. I have been involved in program development, course development, and the mentoring for these future teachers. I look forward to continuing to work with these teachers as they begin their time here at GVSU with us.

On the personal side, **Mason** (4 ½), **Logan** (2 ½), **Matt**, and I have enjoyed camping, hiking, fishing, and exploring Michigan. Matt caught his first salmon ever in late September (3 actually) and I am looking forward to learning to fly fish this summer. Bring on 2011, I am ready!"

Fall 2010 structural geology students examining an outcrop in the Baraboo Hills of Wisconsin (photo by V. Peterson).

Ginny Peterson (petersvi@gvsu.edu) – "A major transition for me this year has been the transition to becoming department head. I served as Assistant Department Head during the first half of the year, helping Steve Mattox with department tasks and transitioning into my current role. I also had the opportunity to teach Structural Geology last fall; I particularly enjoyed the field trip to Baraboo and the chance to explore the structures there with the students. During the summer I made a pre-run of the field trip to explore the outcrops and do some planning while my family enjoyed the water parks in the Wisconsin Dells. We then spent a day enjoying the music at Summerfest in Milwaukee. Visiting Baraboo brought up memories of my own trip there as a student – some of you may also remember some of the interesting peripheral events related to that trip; a plane crashed at O'Hare shortly after we had driven through Chicago on the way out to Baraboo and we were kept awake all night in the campground by the merrymaking of some graduating seniors. Our trip this year was comparatively uneventful – sunny and chilly with a stop to examine how Sky-Hi Apple Pie deformed as we ate it. I am continuing as an Associate Editor for *American Mineralogist* and we are always looking for good submissions! I am also continuing my research in the North Carolina Blue Ridge. My family is doing well. **Jon** is still employed with Sylvan Energy, exploring for petroleum in the Michigan Basin. **Casie** is a junior in High School and starting to think about college. We did not do any major trips this year, but did do a couple of short city trips to Chicago in the summer and New York in the winter."

Peter Riemersma (riemersp@gvsu.edu) – "In the winter I taught my usual large introductory class (Environmental Geology), this time incorporating reflective essays on such topics as global warming and science. We finished the class with a "clicker contest" on the topic of global warming. This fall I taught all new classes - an upper level theme class - Geology and the Environment (Geo 300) and Geochemistry. The focus of the Geo 300 course was the book *A Civil Action* documenting the trial and issues associated with groundwater contamination and leukemia deaths in Woburn Massachusetts. The course concluded with a 3 hour mock trial before a student jury. In the summer I taught for the first time a summer Geo 201 field course for Integrated Science students up in the Upper Peninsula with several days in Copper Country. To help identify field locations and develop inquiry questions, I received a grant from the FTLC to pay for a five day reconnaissance trip to prepare for the Geo 201 class. Participating in the recon trip were Larry Fegel, Pablo Llerandi-Roman and Heather Miller. Highlights of the summer trip included time spent in the Caledonia copper Mine and "rescued" copper from the metal recycling facility near Houghton. Although students were unavailable for a GSA conference field trip this year, Peter Wampler, Greg Wilson and I successfully scouted out future mineral collecting areas. The hundreds of pounds of barite we mailed back attest to our success. Finally, the highlight of my year was probably the week over Christmas we spent in Yellowstone National Park cross-country skiing and dodging bison and geysers."

Grand Rapids area school kids taking part in FRESH program run by Pat Videtich and JoAnn Webb.

Pat Videtich (videticp@gvsu.edu) – "This year seemed to fly by particularly fast, perhaps because I was on sabbatical fall semester. For my sabbatical I mostly worked on the infamous dolomite paper, but I also sat on a NSF panel reviewing grant proposals for recruiting and retaining science, math, and engineering students. I thought it interesting that much of what was proposed we have been doing for years (e.g., field trips, undergraduate research, undergraduate teaching assistants, social events). Of course, in the fall I also "had to" go to GSA to hear presentations, make new contacts, and reestablish old ones. But every year what I enjoy most at GSA is seeing our students and alums so professionally present their research results and, of course, socializing with you all. This year it was especially fun to meet up at the first ever GVSU "pole" at the official, GSA, Monday evening, alum reception! I love taking part in historic events! Among the alums there was **Doug Thorpe** (Geology 1974) whom I had not seen since our GVSC days! Doug has very kindly provided a number of old photos for the newsletter and we invite you to do the same. This year for the first time our whole Sedimentation-Stratigraphy (GEO 312) field trip was spent scrutinizing the Ordovician (and a bit of Silurian and Devonian) of northern Kentucky. The outcrops had some great sedimentary structures and, of course, a plethora of fossils! There was even dolomite! The plan is for Sed-Strat students to return to Kentucky this April and bring back the rocks we couldn't fit into the vans last year. Unfortunately, alum and middle school teacher, **JoAnn Webb** (2005), and I didn't receive continued funding from the Michigan Space Grant Consortium for our summer program for inner city, middle school students (FRESH - Field Research in Earth Science Happenings). So with some funds from GVSU's Multicultural Affairs Office, and the help of Peter Riemersma and geology major, **Erica Dalman**, we ran a much smaller program than summer 2010. Still we had 14 students take part and ran five full days of lab and field trip activities. Two of the highlights this year were a cruise on the *Jackson* and a canoe trip on the Macatawa River organized by the "Outdoor Discovery Center" in Holland. Finally, in summer 2010 I visited Bulgaria, Macedonia, and northern Greece to see old stuff. Mission accomplished!

Lindsey Waddell (waddelll@gvsu.edu) – Lindsey continues to teach 100, 111, and 300 courses as part of the general education program. This is her second year as a Visiting Assistant Professor.

Sedimentology and stratigraphy students on their trip to Kentucky in winter 2010 (photo by P. Videtich).

Peter Wampler (wamplerp@gvsu.edu) – "I am on sabbatical this year and am enjoying the time to concentrate on three research areas, impacts of dams on rivers in Oregon; groundwater quality in Haiti, and continued work on the runoff from GVSU impermeable surfaces. GVSU student **Paul Bourdon** and I completed a research project on the Clackamas River in Oregon in July. We mapped and recovered tracer gravel placed in the river in 2003. The results of the study will inform future plans to augment gravel in the river planned to begin in 2014. We also had the great fortune to get a spot to raft the Wild and Scenic Rogue River in Oregon after we finished with the Clackamas River work. I continue to work on groundwater quality in Haiti and, with the help of students, have created a web site for data and information related to sustainable water in Haiti (www.gvsu.edu/haitiwater). I will be returning to Haiti for a month in March to work with a graduate student from Annis Water Resources Institute (AWRI) and an undergraduate student who will be collecting videography of the research. I recently submitted a National Science Foundation Grant to fund further research in Haiti with collaborators from Anthropology and AWRI. I am also excited about a partnership with Padnos International Center to create a scholarship to bring Haitian student to GVSU. More information about this fund can be found at www.gvsu.edu/haiti. I continue to collect hydrology data on campus and compile information on sustainable storm water at GVSU (www.gvsu.edu/stormwater). I submitted, but was unsuccessful in getting, an EPA grant in collaboration with facilites and Fishbeck Thompson Carr and Huber (FTCH). We plan to submit grants to fund further data collection on campus runoff.

John Weber (weberj@gvsu.edu) – "I write from my new (sabbatical) office at the University of Ljubljana, Slovenia. This is a good gig. (Sabbaticals come only once every seven years. This one was worth the wait/planning/work.) Profs. Vrabec, Stopar, and I are working on good science here, from which we are learning a lot & getting published (GPS and neotectonics of the southern Alps, Dinarides, and Adriatic microplate). **Sarah**, **Teya Li**, and I are living in a nice place (Ministry of Science/University-subsidized housing) that is costing us 10 Euro per day (we can afford this on our ½ GVSU salary). I get to walk past a castle, a medieval city center, and a Roman wall every day on my way to work. On weekends we travel to visit my relatives who live in our ancestral village, or take other interesting excursions (walks/hikes/visits to the famous kras region, Alps, Adriatic seaside) with friends and colleagues. I will also spend 1 week this spring working in Prof. Koeberl's planetary/impact science lab at the University of Vienna (Austria). Teya Li is drawing a lot, learning how to use new words (in Slovenian), and looking forward to starting kindergarten next autumn when we return to Michigan. Sarah, who has been a full-time, stay-at-home Mom, will then be able to work more as a yoga instructor, or return to work as a physical therapist.

Greg Wilson (wilsong@gvsu.edu) "Life is going well for me and my family. I am teaching the honors geology course and with the assistance of a group of dedicated student workers, we manage to keep the geology labs running. For the first time in almost 15 years I did not do a western trip, but this coming summer I will be leading a group on the Canyonlands field trip. I did get to travel to the Upper Peninsula in August with the summer GEO 201 class led by Peter Riemersma. In October I traveled with Peter Riemersma and Peter Wampler to GSA in Denver. Before the meeting we had the opportunity to go mineral (barite) prospecting in South Park, Colorado. **Luke** graduated from high school and is looking at developing a career in aviation maintenance. **Cooper** is a senior at Kalamazoo College and will be graduating this summer majoring in Spanish with a minor in Japanese."

Geology seniors **Kent Walters** and **Elizabeth Koeman** presented posters at the 2010 Michigan Space Grant Consortium meeting in Ann Arbor, Michigan in the fall. Kent and Elizabeth completed summer research projects that investigated carbon storage in alluvial sediments (photo by P. Colgan).

Student Awards

Edward L. Tremba Geology Scholarship
This fund is named for former GVSU faculty member, **Edward Tremba** and is awarded on the basis of merit to upper class students who have demonstrated excellence in academic performance, intellectual ability, and potential for significantly contributing to the geosciences profession. Students must have a GPA of 3.0 or better.

Katie Carlisle
Laura Donker
Hilary Lenzo
Benjamin Matzke
Sarah Dettloff
Steven Holzworth
Sarah Smith
Austin Westhuis

Geology Field Studies Awards
The field studies fund was established primarily to help students with the cost of field camp. The following students who participated in an approved field camp during the summer 2010 and received a field studies award.

Jim Bennett
Kyle Crosby
Andrew De Witt
Steve Hoekwter
Kelvin Koster
Ben Matzke
Esther Posner
Noah Sluiter
David L. Trudeau
Austin Westhuis
Elizabeth Carr
Ross Cudney
Jeremy Espinoza
Phil Kenroy
Christi Kroskie
Mallory Morell
Mary Russo
Allison Stepnitz
Alex Villhauer
Michael Wicker

Tulip City Gem & Mineral Club Scholarship

This award is funded by the **Tulip City Gem & Mineral Club**. The recipient is chosen by the Geology faculty and is awarded to a student who has shown significant leadership and service to the department

Katie Carlisle

Geology Department Scholarships

These scholarships are funded by the University, requires an application by the students, and is awarded by the department

Jim Buzzell
Laura Donker
Samuel Howard
Elizabeth Koeman
Ashley Meade
Kyle Siemer
Erica Dalman
Stephen Hoekwater
Kase Knochenhauer
Hilary Lenzo
Amberjane Pontius
Kent Walters

McNair Scholars Program
Nathaniel Hansen (mentor Patrick Colgan)

S-STEMS Scholarships
This is a competitive grant-funded scholarship program offered through the College of Liberal Arts and Science. Students apply and are chosen on the basis of their achievements and their potential for success.

Kyle Eno **Kase Knochenhauer**

Michigan Space Grant Consortium Undergraduate Fellowships

These are competitive research awards to students working with a faculty mentor. Students were awarded a $2500 summer stipend.

Elizabeth Koeman (mentor Patrick Colgan)
Kent Walters (mentor Patrick Colgan)
Kyle Siemer (mentor Pablo Llerandi-Román)

Professor John Weber received the first *Distinguished Undergraduate Mentor Award* (photo by S. Mattox).

Faculty Awards & Grants

Larry Fegel received the *College of Education Outstanding Educator Award*, Winter 2010.

Figen Mekik received the College of Liberal Arts and Sciences *Outstanding Faculty Service Award*, 2010.

Steve Mattox received a Grand Valley State University Research Grant-in-Aid to *investigate the connections between inquiry-based science, the Montessori Method, and the new Earth Science Literacy Principles.*

Steve Mattox received a National Science Foundation planning grant from *Opportunities for Enhancing Diversity in the Geosciences to pilot Collaborations for Building Michigan Geology Talent* with Sandra Rutherford (Eastern Michigan University).

Ginny Peterson received the Geological Society of America Education Division *Distinguished Service Award*, and was elected a Geological Society of America Fellow, 2010.

John Weber received the GVSU Center for Scholarly and Creative Excellence *Distinguished Undergraduate Mentor Award*, 2010.

Guest Speakers in 2010

2010 Birdsall-Dreiss Distinguished Lecturer

Dr. Susan S. Hubbard
Lawrence Berkley National Laboratory

Waves and Wine: Geophysical Characterization to Guide Precision Viticulture

Toward X-Ray Vision: Geophysical Signatures of Complex Subsurface Processes

Susan S. Hubbard is the 32nd GSA Birdsall-Dreiss Lecturer and the first from a National Laboratory. Susan S. Hubbard is a staff scientist at Lawrence Berkeley National Laboratory, where she leads the Environmental Remediation and Water Resources Program. She received a BA in geology from UC Santa Barbara, an MS in geophysics at Virginia Tech, and a Ph.D. in Engineering from UC Berkeley. She has previously worked at the U.S. Geological Survey and for the petroleum industry. Her research at Lawrence Berkeley Laboratory focuses on advancing the use of geophysical methods for shallow subsurface characterization and monitoring, with a particular emphasis on development of data integration methods and application of those methods to water resource and environmental-remediation problems. She co-edited the first book on hydrogeophysics and has published over 60 papers on this topic. She serves on several scientific advisory boards, as the Associate Director for the Berkeley Water Center, as a Co-Editor for the *Vadose Zone Journal*, and as an Associate Editor for the *Journal of Hydrology*.

Earth Science Week (October 11-15, 2010)

We had record attendance of over 350 students at Earth Science Week talks that included presentations from GVSU alumni and professors as well as outside talks of regional interest. In addition to the Birdsall-Dreiss Lecturer discussed previously, we had presentations from local author Jeff Alexander on exotic species in the Great Lakes and a visual aerial view of Michigan by local pilot/photographer Marge Beaver.

A Personal Perspective of Oil: Exploration to Production, Rachael Czechowskyj (2005).

The St. Lawrence Seaway: An engineering marvel that unleashed an environmental disaster in the Great Lakes, Jeff Alexander, Grand Haven, Michigan

Stormwater Management Issues in Park Township, Ottawa County, Michigan, Paul Geerlings, Ottawa County Drain Commissioner.

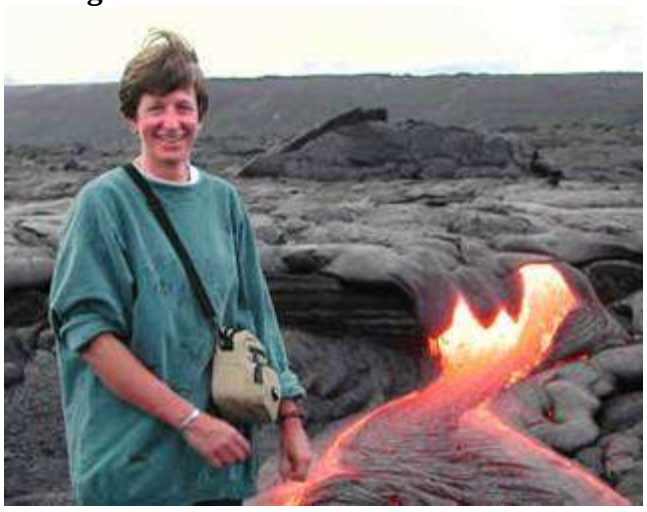
Twenty-two years, four continents, and twelve jobs: Insights into finding a career in geology, Steve Mattox, Department of Geology

The View from Above: An Aerial Perspective of the U.S. with a Focus on Michigan, Marge Beaver, Photography Plus, Muskegon, Michigan.

Waves and Wine: Geophysical Characterization to Guide Precision Viticulture, Susan S. Hubbard, Lawrence Berkley National Laboratory.

Toward X-Ray Vision: Geophysical Signatures of Complex Subsurface Processes, Susan S. Hubbard, Lawrence Berkley National Laboratory.

2010 Mineralogical Society of America Distinguished Lecturer



Katharine V. Cashman
University of Oregon, Eugene

Public Lecture (April 29): *Mount St. Helens: A Tale of Three Decades*

Department Lecture (April 29): *Hill of Fire: A modern look at the 1943-1952 eruption of Paricutin Volcano*

Publications by Students and Faculty

Peer-Reviewed Science Articles & Books

Bush, D.M., **Neal, W.J.**, & Jackson, C.W., 2009, Summary of Puerto Rico's Vulnerability to Coastal Hazards: Risk, Mitigation, and Management with Examples: in Kelley, J.T., Pilkey, O.H. & Cooper, J.A.G., eds., *America's Most Vulnerable Coastal Communities: Geological Society of America, Special Paper 460*, p. 149-165.

Fletcher, C., Boyd, R., **Neal W.J.** &Tice, V., 2010, Living on the Shores of Hawai'i: Natural Hazards, the Environment, and Our Communities: University of Hawaii Press, 336 p.

Miller, H.R., McNeal, K.S. & Herbert, B.E. 2010, Inquiry in the Physical Geology Classroom: Supporting Students' Conceptual Model Development. *Journal of Geography in Higher Education*, v. 34(4), p. 595-615.

Mekik, A. F., Noll,* N. & **Russo*, M.,** 2010, Progress Toward a Multi-Basin Calibration for Quantifying Deep Sea Calcite Preservation in the tropical/Subtropical World Ocean, *Earth and Planetary Sciences Letters* DOI 10.1016/ j.epsl.2010.08.024.

Prentice, C., **Weber, J.,** Crosby, C & Ragona, D., 2010, Prehistoric earthquakes on the Caribbean-South American plate boundary, Central Range Fault, Trinidad, *Geology*, v.38, n.8, p.657-678.

Russo*, J., Mattox, S. & **Kildau*, N.,** 2010, Predicting the Timing and Location of the Next Hawaiian Volcano**.** *Science Scope*, v. 33, no. 5, p. 26-32

Standriff*, S. & **Mattox, S.,** 2010, Water Here, Water There, Water Is Everywhere! *Michigan Science Teachers Association Journal*, v. 55, no. 2, p. 72-79.

Schipper*, S. & **Mattox, S**., 2010, Using Google Earth to Study the Basic Characteristics of Volcanoes. *Science Scope*, v. 34, no. 3, p. 28-37.

Wampler, P.J. & **Sisson***, **A.J.** 2010, Spring flow, bacterial contamination, and water resources in rural Haiti. *Environmental Earth Science*, DOI 10.1007/s12665-010-0645-9.

Weber, J., Saleh, J., Balkaransingh, S., Dixon, T., Ambeh, W., Leong, T., **Rodriguez*, A.** & Miller, K., 2011, Triangulation-to-GPS and GPS-to-GPS geodesy in Trinidad, West Indies: Neotectonics, seismic risk, and geologic implications, *Journal Petroleum and Marine Geology*, v.28, p.200-211,

Weber, J., Vrabec, M., Pavlovic-Preseren, P., Dixon, T., Jiang, Y., and Stopar, B., 2010, GPS-derived motion of the Adriatic microplate from Istria Peninsula and Po Plain sites, and geodynamic implications, *Tectonophysics*, v.483, p.214-222.

Zhou, Shangzhe, Wang, Jie., Xu, Liubing, **Colgan, P.M.** & Mickelson, D.M., 2010, Glacial advances in southeastern Tibet during late Quaternary and their implications for climatic changes, *Quaternary International*, v. 218, p. 58-66.

Articles, Editorials, and Book Reviews

Colgan, P.M. 2010, A Brief Geological History of the Ravines. *Grand Valley Review*, v. 35, p. 11- 22.

Neal, W.J., 2010, Four-Mile Beach, Cape Breton Island, Nova Scotia: December Beach of the Month, Coastal Care http://coastalcare.org/

Wampler, P.J. 2010, Grand Valley State University's Secret Garden. *Grand Valley Review*, v. 35, p. 26-29.

Weber, J. 2010, Water, "Rule" Number Three. *Grand Valley Review*, v. 35, p. 37-46.

Conference Abstracts

Bush, D.M., Jackson, C.W., Maloof, A., Petruccelli, R.F. & **Neal, W.J.**, 2010, A small Community's Dilemma: Case Study of Coastal Hazard Assessment and Mitigation, *Palo Seco, Puerto Rico: Abstract Contents*, p. 7, Coast to Coast 2010 Meeting, Adelaide, Australia.

Butler, K., & Mattox, S., 2010, Connecting Zoo Animals to Major Evolutionary Changes and Geologic Time. *Michigan Science Teachers Association Conference Program,* p. 41.

Carlisle*, C., Mattox, S., Colgan, P.M. & Hon, K., 2010, Paleomagnetism of an Inflated Lava Flow: Kilauea, Hawaii, *Geological Society of America, Cordilleran section meeting*, v. 42(4), p. 95.

Dalman*, **E.M., Koeman*, E.C. &** Videtich, P.E. 2010, Using a Rock Tumbler in Sedimentation Courses to Simulate Weathering and Erosional Processes. *Geological Society of America Abstracts with Programs*, v. 42, no. 5, p. 120.

Giorgis, S., Travis, M.E. & **Weber, J.** 2010, Advantages and limitations of long-term plate motions calculations based on integrated strain and vorticity analysis: Examples from both active (Trinidad) and ancient (western Idaho) plate boundaries. *Geological Society of America Abstracts with Programs*, 42(5), p. 371.

Hansen*, N.J. & **Colgan, P.M.,** 2010, The geomorphic and environmental settings of known archeological sites in the lower Grand River Valley, Ottawa County, Michigan. *Geological Society of America Abstracts with Programs*, v. 42, no. 5, p. 578.

Herbert, B.E., **Miller, H.E.**, Loving, C.C., & Pederson, S. 2010. Transferring Science to Middle-School Classrooms Using Authentic Datasets Through and Inquiry-focused, Early-Career, Science Teacher Professional Development Program.

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Some of the Geology alumni, students, and faculty that attended the fall Geological Society of America conference held in Denver, Colorado. Back row from left to right: **Doug Thorpe**, **Peter Wampler**, **Stephen Shields**, **Ron Green**, **Joel Kenyon**, **Kat Barnard**, **Greg Wilson**, **Jill Kurek**, **Ann Bykerk-Kauffman**, **Sara Nagorsen-Rinke**, **Jim Rinke**. Front row from left to right: **Cameron Ross**, **Ginny Peterson**, **Pat Videtich**, **Sam Howard**, **Elizabeth Koeman**, and **Peter Riemersma**.

Alumni News

Jim Walters (1970) continues on the faculty at the University of Northern Iowa. He was a coauthor on two GSA presentations.

Doug Thorpe (1974) lives south of Denver and works for DCP Midstream, a natural gas company. He stopped by the department in Allendale when he was visiting Michigan in the last year.

Larry Austin (1974) – Larry recently came to visit the department and speak to students about joining AIPG. Thanks Larry! Larry has been very active in AIPG and has received numerous awards for his service to this group.

Ron Green (1978) continues his work at the Desert Research Institute.

David Anderson (1970) – Lives in the Dallas Texas area and works in the oil and gas industry.

Ann Bykerk-Kauffman (1980) continues as a faculty member at Chico State University, California. She presented a Geoscience Education research talk as part of the Geoscience Affective Research NETwork (GARNET) team.

Greg Swayze (1982) works for the U.S.G.S. in Denver Colorado.

Ron Sheets (1982) reports that he is exploring for gold in Mali and Senegal for a number of Canadian mining companies.

Graham Cockford (1989) is working for RMT an environmental engineering firm in Michigan.

Amy Wolfe-Thomas (1991) works for the Ingham County Health Department and lives in Lansing, Michigan.

Alexandra de Jong-Emmons (1998) lives in Utica, New York, not far from the Herkimer Diamond Mine.

Amber Brooks (2000) **-** In September, Amber stopped by the department. After obtaining her Master's at George Washington University, Amber spent time in Romania with the Peace Corp and now travels the world working for a non-profit aid organization.

Andrew C. McCarthy (2000) – "I've resigned from ConocoPhillips, working the Bakken from Midland, TX. I've decided to join Concho Resources here in Midland and will be working the Avalon Shale play in the Delaware Basin."

Rachael Czechowskyj (2005) visited the department and gave a talk in the fall for Earth Science Week. She recently accepted a new job at Murphy Oil and Gas in Houston.

Jill Kurek (2006) recently completed her M.S. degree at North Carolina State University and is currently working in Denver.

Jim Rinke (2006) gave a talk at GSA on upper mantle velocity determinations in Antarctica using surface waves. He was planning a second research trip to Antarctica this winter.

Steve Zdan (2006) is a research assistant and an M.S. student at Western Michigan University.

Kat Barnard (2007) is continuing her PhD. Research at Portland State University on projects related to soils and terroir.

Joel Kenyon (2007) is now attending the Colorado School of Mines working on a M.S. degree in environmental science and engineering.

Sarah Nagorsen-Rinke (2008) presented a poster at GSA of her field-based research on Pliocene and Pleistocene fault slip in California, Her M.S. is nearly complete and she is currently the STEP program coordinator at Central Washington University.

Eric Hojnacki (2008) is working in Nevada in the mining industry.

Christy Barszewski (2009) is studying deformed diamictites in Utah as part of her M.S. degree program at the University of Wisconsin-Milwaukee.

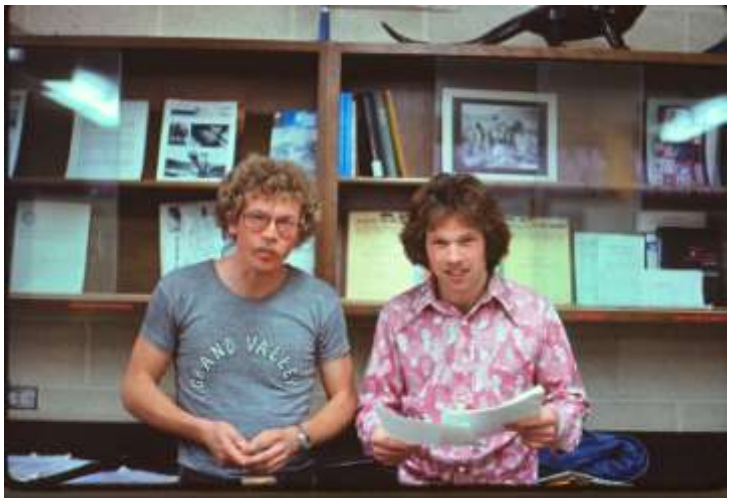
Chris Denison (2009) is completing his M.S. degree at Colorado State University this year.

Miguel Merino (2009) gave a talk on research related to the New Madrid seismic zone and was coauthor on a poster examining seismic tomography in the Red Sea region. He is in his second year as a graduate student at Northwestern University.

Cameron Ross (2009) recently started in the M.S. program in Geophysics at Oklahoma State University

Esther Posner (2010) was back in west Michigan over the holidays and made a stop to visit. She is loving her work as a graduate student in petrology at the University of Arizona. She is immersed in course work and laboratory work.

Steve Holzworth (2010) recently graduated and was seeking employment at the GSA meeting. He now is working on an oil and gas rig in North Dakota.



Doug Hull and **John Vrona** in 1977. Our lab, now 128 Padnos Hall hasn't changed at all. Photograph by alum **Doug Thorpe**.

Geology Chili Contest

The sixth annual chili contest was held on Monday Feb 15th and included 58 participants, 12 chilis and 1 dessert and side dish submission. Of particular note - we had 5 student chili submissions and the coveted Best Overall Award went to Neal Ringerwole.

Best Overall Chili	**Neal Ringerwole**
Most Popular Student Chili	**Ben Matzke** and **Steve Holzworth**
Best Vegetarian Chili	**Alison Stepnitz**
Hottest Chili	**Alison Stepnitz**
Most Geological Chili	**Greg Wilson**
Best Dessert	**Patricia Videtich**
Best Side Dish	**Janet Potgeter**

submitted by **Peter Riemersma** (Chili Coordinator).

Please Support Geology/Earth Science Funding

Thanks to the generosity of alums, friends, and faculty of the Geology Department we have several endowed funds that help to support our students and further the mission of the department. Once an endowed fund exceeds the $30,000 level the department can spend up to 5% of the fund each year. As indicated earlier the **Norman and Helen Gibson Geology Field Study Scholarship** reached the endowed level this past year and we will be able to start awarding scholarships this spring. We are also in the process of establishing a new fund, The **Richard H. Lefebvre Field Education Fund** and you should now be able to start contributing to that fund. Information about each fund and guidelines for contributing are provided below. In this challenging economic climate the support from these funds is particularly critical and any support you can provide is very welcome. Information on how to donate can be found at https://secure.gvsu.edu/giving/index.cfm?sb_path=give-online1. If you have questions about the process of giving, please contact University Development at 616-331-6000 or universitydevelopment@gvsu.edu.

The endowments that support our students are as follows:
Funds that directly support students:

Edward Tremba Geology Scholarship - This scholarship is awarded on the basis of merit to upperclass students who have demonstrated excellence in academic performance, intellectual ability, and potential for significantly contributing to the geosciences profession. Students must have a GPA of 3.0 or better.

Norman and Helen Gibson Geology Field Study Scholarship - This scholarship honors long-time Tulip City Gem and Mineral Club member, Norman Gibson and his wife Helen. It supports students pursuing geosciences or geoscience education research.

Geology Student Field Studies Fund - This fund provides support to students who are attending Field camp.

Funds that support our department mission

Richard H. Lefebvre Field Education Fund - This new scholarship will help to support department field trips. The cost of field trips has gone up significantly without an increase in our budget and we have had to resort to passing along those expenses to students. This fund will help us maintain a strong field-based focus to education in the department. In the short term, donations to this fund should be made by writing in the name of the fund.

Geology Development Endowment - This fund helps with special needs in the department such as matching funds for equipment or outside speakers.

Paul & Florence Miller Mineral Collection - This fund was started by Paul Miller, who made a significant donation of minerals to the department. The fund supports additions to the collection as well as displays.

Geology students after a successful vibrcoring expedition at Hemlock Crossing County Park. Note just how dirty this bunch looks after coring in organic rich alluvium (photo by P.Colgan).

Please send the following information about yourself in one of three ways:

Email to Janet Potgeter at:

geodept@gvsu.edu

Mail it to us @ Geology Department, GVSU, Allendale, MI 49401

We have an online form for direct electronic submission at:

http://www.gvsu.edu/geology/

Name: (If your name has changed since you were a student here, let us know your previous name also)

Graduation year: _____

Employment/Life status or changes:

Contact information* (address, email, phone)

- Note that we will not post contact information on the web site apart from your city of residence – please let us know if you do not want us to share your contact information with alumni or friends who request it.

This newsletter was put together and edited by Patrick Colgan. He is very thankful it is done! Thanks to Janet Potgeter for proofing and getting out to alums!

We are looking for feature articles for next year's newsletter. If you have something in mind that students and alums would find of interest please contact Patrick Colgan at:

colganp@gvsu.edu
616-331-3201

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TO: