D E P A U W U N I V E R S I T Y

Department of GEOSCIENCES

The Boulder RUNdown - Spring 2014

Major numbers...

We now have 44 Geoscience majors...

14 in Geology
24 in Environmental Geoscience
6 in Earth Science

Current Ph.D. candidates...

Here's a list of recent Department graduates who are continuing on for Ph.D.'s: Katie Glover '01, Andrea Huska '09, Alex Lopatka '12, & Lauren Schaefer '09.

The 'crops are eroding...

Geo-majors continue to travel extensively to visit field areas as part of their courses and/or research projects, including: China, St. Francois Mts., MO, and many other local trips.

Check us out!

Visit our **Facebook page***:* *http://www.facebook.com/pages/DePauw-University-Geosciences/118662514879623* *and our* **website***:* *http://www.depauw.edu/academics/departments-programs/geosciences/*

Speakers bring insight and perspective to Department majors...

The "voice of experience" speaks volumes to our current student majors about what things are important in the "real world"...from classes to take at DePauw to how to write application letters/resumes to how to do technical work and/or research. It is difficult to over-estimate the importance of having speakers come to the Department of Geosciences and share their "real-world" experiences. Oftentimes, their advice echoes that provided by Departmental faculty, but it is always a good thing for students to hear similar things from voices with different perspectives. We have been fortunate to have Departmental alumni and influential geoscientists visit the Department to share their life lessons with our students this past year.

DR. BARRY BICKMORE

Mineral Surface Geochemist, Brigham Young University.

Barry was at one time a climate change skeptic, but over the last several years has re-evaluated the data and science behind modern climate change and has recognized the growing severity of the problem. As a consequence, he has become a national spokesperson on the issue of climate change. Barry shared his perspectives with Department students and also spoke more generally about the value of a liberal arts education at DePauw.

DR. CHRIS BONNIWELL '94

Technical Director of Investigation and Remediation Services & LPG, Wilcox Environmental Engineering, Inc.

Chris's far-ranging talk touched on valuable lessons learned at DePauw, the nature of graduate school in the geosciences, and his non-linear path of employment that has helped him develop unique skills and perspectives regarding the environmental industry. He also had sound advice about what DePauw students could do to make them more employable in the environmental industry.

MAGGIE BABER '11

Geoscientist, NEOS GeoSolutions

Maggie returned to DePauw to present a talk on "*Developing a ^{10}Be chronology of late Pleistocene and Holocene glaciation in the Rwenzori Mts., Uganda*", the subject of her recently completed Master's degree at Dartmouth College. Maggie described an innovative approach involving ^{10}Be to help constrain the age of recessional moraines in a valley within the Rwenzori Mountains on the flanks of the East African Rift in Uganda.

Department of Geosciences speakers:
Dr. Barry Bickmore (top left), Maggie Baber '11 (bottom left),
Dr. Chris Bonniwell '94 (top right), and Dr. John Steinmetz (bottom right).

DR. JOHN STEINMETZ

Director & State Geologist, Indiana Geological Survey

John described many of the exciting activities currently being undertaken by the Indiana Geological Survey. Specifically, he described the new, state-wide, high-resolution LiDAR data and how it is dramatically changing mapping efforts in Indiana. He also provided students with practical tips and advice when applying for jobs.

Message from the Chair

Greetings to you all! Once again, I want to welcome you to the annual Department of Geosciences newsletter. As usual, it has been a busy year both in the Department and for the University.

My first task is to report to you that this will be my last year as Department Chair, and come mid-summer, Fred Soster will take over as Chair. We are very excited to once again have Fred as Chair, and with his many years of experience at DePauw, we are sure that the Department is in good hands. Please give him a hearty congratulations and welcome. It has certainly been my pleasure to provide guidance to the Department over the last six years, but I must admit that I am looking forward to having more time to pursue my professional interests. Next year I will be teaching Mineralogy in the fall, and I will have a semester-long sabbatical leave in the spring. I hope to complete a draft of a new introductory textbook on Earthquakes and Volcanoes during this time.

In other news, last summer was once again filled with student/faculty research projects as you will see in the following sections. In the Fall, Scott, Tim, and I each presented the results of various research projects at the 125th National Meeting of the Geological Society of America in Denver, Colorado. Three students (Stephen Dobbs '15, Forrest Kunkel '15, and Will Joseph '14) also accompanied us and presented their work at the meeting. Also at the meeting were Geosciences alumni Brittany Slate '13, Bryant Kosanovich '13, Melissa Penfold '12, Andrea Huska '09, Sarah Smaltz '06, Katie Glover '01, and Connie Dicken '99. It was so good to see all of you! And, as a special bonus, I was able to continue my tradition of having a wonderful Mexican dinner with Jim Puckett '67 and his wife Kris. At GSA this year, we discussed the potential of holding a special reception for DePauw alumni and current students at an upcoming national GSA meeting. Please be sure to let us know if you plan to attend the national GSA meetings, and perhaps we can see about hosting a DePauw gathering. And speaking of alumni events, I have been getting some gentle pressure (thanks Beth!) to put together a Grand Canyon raft trip for Geoscience faculty, students, and alumni sometime in the next few years. If you are interested, please let me know!

As many of you may have heard, the faculty at DePauw approved a new model for Winter/May Term courses. Without going into too much detail, the new model removes the obligation for faculty to teach a Winter/May Term course every third year, and instead, makes teaching these courses voluntary. Also, students are now required to take only two Winter/May Term experiences rather than three. Built into the new model is the flexibility of offering either non-credit or for-credit courses. The for-credit option for students will now allow them to receive financial aid for any course with additional costs, especially those that have trips. There is a lot of flexibility built into the new model, and the Department of Geosciences is very excited to have the ability to expand the possibilities for what we do both in the classroom and for short- to long-term field trips. For example, we could now tie field trips to specific classes taught during regular semesters. In the near future we also may be able to offer summer courses and trips. Exciting times and options indeed!

I hope you have all had a wonderful and productive year. We look forward to hearing from you soon!

-Jim (jmills@depauw.edu)

Remembering Chris Alonzi '11

The Department of Geosciences was saddened to learn that our good friend and colleague, Chris Alonzi '11, passed away last December after a valiant battle with leukemia. Chris majored in Earth Science and minored in History while here at DePauw. Chris was a great person to be around...he enjoyed riding his bike (and being in Little 500), he loved being in the field looking at rocks, he read widely (including material on natural science, politics, & history), and enjoyed deep discussions on a wide range of topics. He also was very passionate about the Boy Scouts, spending many summers teaching scouts at a camp in Wisconsin and sharing his knowledge of the natural sciences. Chris will be sorely missed by his DePauw family.

Chris Alonzi (tan jacket) and the Fall 2010 Structure class (from L-R: Burris Smith '11, Maggie Baber '11, Andrew Krein '11, Natalie (Mathews) Wood '11, and Julia Shaw '11) at Van Hise Rock near Baraboo, WI.

We have put together a special section on our Facebook page dedicated to remembering Chris. If you have pictures and/or stories about Chris to contribute, please feel free to add those to the Facebook page.

Department Scholarship Awards

Ernest R. "Rock" Smith Memorial Scholarship
Henry Binning '15, Stephen Dobbs '15, William Joseph '14, Katherine Shover '14

Charles L. Bieber Memorial Fund
Ariana Borrello '14, Emma Cooper '15, Mackenzie Cremeans '14, Elizabeth Dilbone '15, Lauren Krumwiede '14, Forrest Kunkel '15, Nicholas Williams '15

Charles M. & Frances Wylie-Condit Science Scholarship
Tyler Donaldson '16, Lauren Van Fleet '16

H. Richard Gault Memorial Scholarship
Carly Dutkiewicz '14

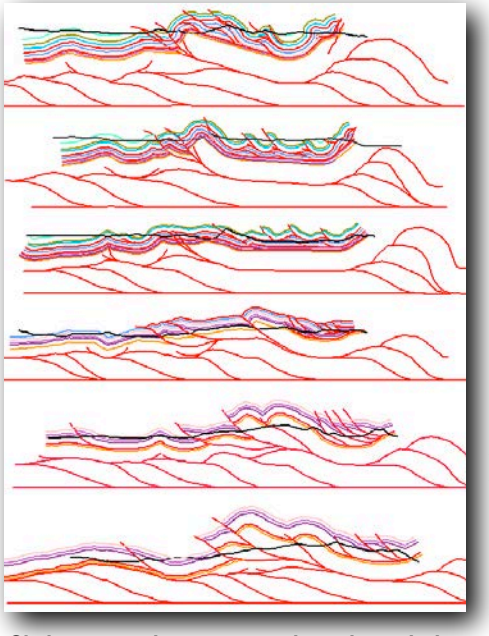
Income from the **James A. Madison Fund for Research** and the **F. Michael and Dorothy W. Wahl Endowed Fund for Geosciences Field Trips** help subsidize Department of Geosciences faculty-student research activities and student field trip costs, respectively.

Scott Wilkerson

Greetings from Greencastle! I hope this newsletter finds you all happy, healthy, and looking forward to Spring.

I've had a busy year on the research front. My main focus was to continue my work on a research project in the Hudson Valley fold-thrust belt of New York State. In particular, I worked to refine a preliminary geologic map of the region (Burmeister, 2005) and to construct six balanced cross sections through the area. Previous interpretations (both map and cross section) showed abrupt changes between the northern, central, and southern sections of the map area (due primarily to thinning of the Silurian section to the north). These interpretations not only showed dramatic along-strike changes that were difficult to correlate laterally, but also contained inconsistent map relationships (e.g., thrust faults with normal offset, large along-strike displacement changes, etc.) that needed to be addressed. My research "epiphany" this summer was realizing that adjustments to the map relationships could greatly simplify the interpretation to depict different structural levels of a fold-thrust belt that was regionally plunging to the north. Specifically, the southern section showed the lower Silurian and upper Ordovician duplexes, whereas the northern area showed an upper-level Siluro-Devonian detachment with smaller wavelength structures (see draft cross sections to the left).

Wilkerson family enjoying Niagara Falls. We also toured the entire Great Lakes region, exploring waterfalls, collecting rocks, and donating blood to the Michigan "state bird" (diagram of "state bird" at reduced scale!).



Six interpretative cross sections through the Hudson Valley fold-thrust belt (NW on left, SE on right). Sections are arranged from N (top) to S (bottom), and are ~2 miles long.

So basically, this research took a preliminary map and set of cross sections that didn't match and that appeared complex and inconsistent, and created an interpretation where the map and cross sections not only agreed with each other, but did so in a fairly simple way. Despite the elegance of this "simplistic" interpretation, some of the subsurface details (e.g., the nature and locations of deeper subsurface duplexes & detachments) remained solidly "geo-fantasy". Fortunately, while I was presenting this work at GSA in Denver, a colleague clued me into some industry seismic data just south of this field area that might help constrain the lower parts of the cross sections. Through friends at ExxonMobil, I was able to get copies of these 2D lines. My plan is to make one more pass modifying the cross sections in light of these new data before we write and submit a manuscript for publication.

I also still remain actively engaged in other research fronts as well. As you may recall from the last newsletter, I had submitted an NSF research proposal to start work during Summer 2014 on fractures in Arches National Park with a colleague from Northern Illinois University. Unfortunately, despite strong reviews, the NSF panel decided not to fund that work. However, my NIU colleague is trying to piece money together for his graduate students to go out and do some preliminary field work (which may involve my help). Hopefully, this work will constitute some "seed" research to help support future grant-writing efforts.

I also continue to integrate Google Earth into both my research and my teaching. To support these efforts, I was just awarded a 3-year Faculty Fellowship to write a Map Interpretation textbook that integrates Google Earth, GIS, and digital topographic maps (this will be great for my Map Interpretation course!). In fact, I'm sitting in the computer lab right now as my Map Interpretation students take an exam with topographic maps that are georeferenced in Google Earth (it is really cool to see all of these topographic maps draped over 3D terrains on the computer screens as the students zoom and rotate their perspectives).

Beth is as active as ever in the GIS Center...she continues to see growth in all aspects of her work (particularly administrative projects involved the DePauw grounds and buildings). Zach (16, sophomore) and Ben (12, sixth grade) are both happy, growing boys (Zach is almost my height and Ben stretches to be taller than Beth). Both boys continue to be active in sports, music, and academics, so there is never a dull moment in our household! We managed a "Great Lakes" vacation this year and enjoyed exploring the Upper Midwest, including Niagara Falls (above), collecting rocks from the icy waters of Lake Superior (no excellent agates, but some cool rocks nonetheless), and checking out the folded banded-iron formation (one of the highlights for Beth & the boys).

To get the "rest of the story", please consider stopping by when you are passing through the area! Take care and please stay in touch.

-*Scott* (mswilke@depauw.edu)

While at the 2013 Geological Society of America annual meeting in Denver, Scott Wilkerson and Jim Mills enjoyed dinner with department alums (from left to right) Melissa Penfold '12, Connie Dicken '99, and Sara Smaltz '06. This was a "reunion" of sorts as each of these ladies conducted research with Scott during their DePauw careers.

Please email Scott (mswilke@depauw.edu) with information for the Alumni News section and with information about any internship/employment opportunities for our students!

Jeane Pope

Happy Spring, everyone! As I write, the temperature in Greencastle is starting to warm, and our record-setting snow accumulation is melting. Being a northerner, I have to admit that I enjoyed this winter; helping Luna make her first snowman was especially fun! But I always love Spring, especially as the days grow longer. I'm sure we'll see some of the first crocuses pop up any day now…

Jeane and Luna make a snowman in the wake of one of our many storms this last winter.

I suppose the biggest change in my work life this last year is that I have assumed some new administrative responsibilities, and am now serving as the Faculty Sustainability Coordinator. This position grew from my work with the Campus Sustainability Committee that I mentioned in the newsletter last year. Essentially, the purpose of this position is to aid in the process of institutionalizing sustainability concerns across campus and especially to foster connections between sustainability efforts and the academic mission of the University. I have been doing this by building relationships with faculty members in a number of different departments who have personal and professional interests in sustainability and by serving as a resource for faculty members who supervise student projects related to sustainability or environmental concerns. This work kept me quite busy last summer and fall as I had numerous meetings with administrators, students, and faculty and staff members on issues as varied as how to bring sustainability into the building process (e.g., for the new dining hall) to how to try to establish a "green fund" that can be used to make sustainability investments. Attending the Association for the Advancement for Sustainability in Higher Education (AASHE) annual conference in Nashville, TN in October was particularly helpful because I was able to talk to people from different campuses across the country about how they are grappling with really serious problems like climate change. Although it is a lot of work to balance the different perspectives and values that exist across the university, I have also found the process to be very rewarding. It is especially fun to share my experiences with interested students because I feel like we are all learning how to work towards positive change together.

Because of the sustainability work, I took a break from active research last summer. However, in anticipation of next summer's research plans, I offered an independent study course for students who were interested in learning more about water quality analyses this last fall. Three students who had taken geochemistry in Spring 2013 (Emma Cooper '15, Forrest Kunkel '15, and Erin Wadsworth '15) learned both the theory and the application of ion chromatography. Although Erin is off campus studying in Hawaii this semester, Emma and Forrest have been joined by Nick Williams '15 in an additional independent study course this spring. The students are currently reading background literature on agricultural runoff, and we will be analyzing water samples with the IC later this semester. With the students, I will be able to collect and analyze samples early in the Spring when nutrients are first applied to the fields. I think that these data are important for understanding the temporal variation in water quality that we see in the headwater region of Big Walnut Creek. I have also applied for funding to continue this work through the summer and early fall. If all goes well, my summer students and I will plan on presenting our findings at GSA in October.

Even though I wasn't actively collecting data last summer, I have stayed involved with the Big Walnut Creek Watershed Alliance (BWWA), and last summer was elected to the position of President of this organization. I have really enjoyed becoming active in the BWWA. Not only has it given me a chance meet and work with people with similar professional interests to my own, but it has also been a wonderful opportunity for my students to gain real-world experience. Numerous research studies show that students who engage with real, applied problems are much more likely to develop the critical thinking skills necessary to address important societal problems. To date, the BWWA has an impressive track record of identifying and addressing water quality problems in our watershed. Although some of the projects administered by this group have not been in place very long, I have no doubt that they will have a demonstrable positive impact on the quality of streams in our area. As such, I have been pleased that my affiliation with the BWWA has given my students the opportunity to interact with watershed experts outside DePauw.

Things are going well on the home front, too. Luna, who will turn four this June, keeps me on my toes, but I have really enjoyed watching her change and grow. It's lovely to have a community of families, too; most Friday nights will find the Copes and the Popes at the Duck, joined by other Biology, Philosophy, and Psychology faculty members and their kids. All in all, life is good!

Cheers,
-*Jeane* (jpope@depauw.edu)

Luna Pope — well positioned to follow on the heels of her father.

Fred Soster

Dear Alumni, Students, & Friends of the Geosciences Department,

It has been a quiet year so I really don't have a lot to write about for this edition of the newsletter. I decided to take a break from all of the fieldwork to develop a new course for the department's curriculum and to finish up a manuscript that I have been working on for two years. This has been the first year in memory that I haven't been actively involved in data collection for some type of research project.

Fred jumped at the opportunity to go along on a one-day research cruise on Lake Erie aboard the R/V Muskie, the newest edition to the USGS fleet of "big boats" on the Great Lakes.

I had another substantial teaching load this academic year. I taught Earth & the Environment and Historical Geology in the fall semester, and I am teaching Earth & the Environment and Energy & the Environment this spring semester. Energy & the Environment is a new course that I developed over the summer with a course development grant supported by the University's Mellon Grant to establish the Environmental Fellows program. There was no regularly offered course in the University curriculum that focused specifically on energy resources and impacts on the environment, so this was an opportunity to develop a course in an area in which I have become very interested. I taught Energy for the 21st Century as a First-Year Seminar in both 2009 and 2011, and the development of Energy & the Environment was a logical outgrowth of those teaching experiences. The students in the first-year seminars were really interested in peak oil and the potential changes that might occur in industrialized societies as we go over the peak and net energy from oil begins to gradually decline. I anticipated that there would likely be a high level of interest in a course that examined both energy resources and environmental impacts of using these resources, and sure enough there was high demand for the course, and it filled to capacity (33 students). The energy landscape is literally changing before our eyes as horizontal drilling and hydraulic fracturing ("fracking") increase domestic oil and gas reserves, wind continues to play an increasingly important role in the energy mix, and China and India increase their demand for energy at a rapid rate as their economies expand. Couple this with atmospheric CO_2 levels that continue to increase (400 ppm late last year) and the potential climate changes this might bring, and the ingredients for an interesting and relevant course are all in place. Changes in energy supplies and climate will occur during this century, and everybody will be impacted to some degree. It doesn't get more relevant than that.

On the research front I finished the text of a manuscript "Potential Impact of *Chironomus plumosus* Larvae on Hypolimnetic Oxygen in Lake Erie." Six of seven figures are complete. I just need to find the time to finish up the last figure, and the manuscript will be ready to go out for review.

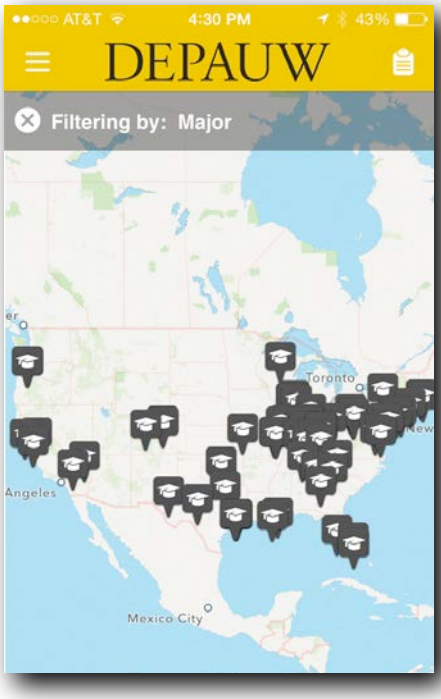
I finished my three-year term on the Committee on Academic Policy and Planning last year, so I have a break from committee service this year. I also have been appointed Chair of the Department for the next three years, and in talking with Jim Mills (current Department Chair) the last few weeks, I get the distinct impression that he is eager to "pass the baton" after six years serving as Chair.

Big news on the home front. Our son Fred decided to attend DePauw University and is presently a first-year student in the Honor Scholar program. He went through rush (much to our surprise) and pledged Delta Upsilon fraternity. Our daughter Erica will graduate from IUPUI with a Master's Degree in Genetic Counseling in May. She is in the job search mode now. Jennifer continues her work with the University in a new position in the School of Music working on the new "21st Century Musician" initiative.

I hope you all had a good year. Drop me an e-mail when you get a chance, and by all means stop in and say hello if you return to campus.

-Fred (fsoster@depauw.edu)

Tim Cope lecturing to the Sed/Strat class at the Cagles Mill, IN spillway outcrop.



Screenshot from the DePauw Alumni App by EverTrue showing a map of Geoscience alumni based on work location. This app provides a means of searching the DePauw alumni directory and mapping alumni by business address anywhere in the world to create a powerful alumni network between alumni, students, faculty, & staff.

Check out http://www.depauw.edu/alumni/connect/alumni-app-faqs/ to read the FAQ's and to download the app for iOS & Android devices.

Tim Cope

Greetings from the angry throat of the polar vortex! I hope this newsletter finds you somewhere more hospitable than frigid Greencastle. Fortunately, I now have a hot tub to relax in when the weather gets chilly. Unfortunately, it's outdoors — so it can't be TOO chilly (I've decided that below zero and windy is about my limit). The big stories for me in the past year have been enjoying my newly-remodeled home, watching my kids grow up (Zoe is now in kindergarden!), and continuing with my NSF-sponsored research project in China.

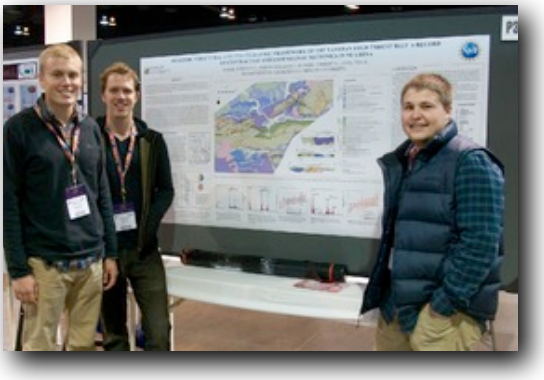
The China project has been going very, very well. Our work was featured in the Fall 2013 issue of DePauw Magazine (as an alum, you may have seen the piece — if not, then go back and take a look!). Last summer, I took three more DPU students with me to our field area in the Yanshan fold-thrust belt in northeast China (Steve Dobbs '15, Will Joseph '14, and Forrest Kunkel '15). Steve was the experienced member of the student group, as he had traveled with me the prior year. He and WIll did some excellent independent mapping along the boundaries of a small Jurassic sedimentary basin in our field area, while Forrest worked with me and a pair of Chinese graduate students to map an older basin nearby. Steve and Will found some great evidence that their sedimentary basin is thrust-related (I'm hoping Steve will get this work published before he finishes at DPU), and my group discovered and mapped a previously unrecognized unconformity that developed following an older phase of thrust faulting. After our field season, we traveled to the University of Arizona to date zircons from several samples that we extracted from volcanic and sedimentary rocks in the region, in order to date some important stratigraphic horizons and pin down the timing of some of the events in the area. All three students presented their work at GSA in Denver last fall. We're getting some excellent data, all which so far indicate that the Yanshan belt has a broad, two-phase history of development. NSF seems to like our results so far, because I've just received word that my grant has been renewed for an additional year!

In the past year, I taught Sed/Strat (with 24 students!), GIS, and (once again) Senior Seminar. This has been my "standard" suite of courses for the past few years (which is great, because I love all three of them). I'm in the process of rewriting some of the labs for Sed/Strat so that they can accommodate the large class sizes that are quickly becoming the norm here, and I've re-tooled the GIS course to make it a full lab course. Senior Seminar, as always, was a fabulous learning experience for me. I can always count on my seniors to select papers for us to read in new subject areas that I wouldn't necessarily explore on my own. We had everything from Martian sedimentology to "Peak Phosphorous" this year, and the discussions with students were (as always) engaging and thought-provoking.

The Cope family is living large in our new space (in particular, I've been enjoying the hot tub, as you might surmise from reading my opening comments). We showed the space off to the department at the end of the school year last summer, when we hosted a department get-together at our home. Kate and the kids are all doing very well. Zoe is reading and doing arithmetic now, while Tess is learning to spell her name and practicing to be a ballerina. They're old enough for babysitters, too! Kate and I managed to make it out of the house a couple of nights by ourselves last year.

We've had visits from a few of you over the past year, and I've always been excited to see our alums and hear what you all have been up to. If you're ever in the area, please don't hesitate to stop by and see us!

-*Tim* (tcope@depauw.edu)



Forrest Kunkel '15, Stephen Dobbs '15, & Will Joseph '14 presented a poster at the GSA annual meeting on their China research with Dr. Tim Cope.

Alumni News

Charles Bates '39 has been a great resource in keeping us up-to-date on some of our older alumni and in describing Department activities in times past.

Jim Puckett '67 and his wife Kris are doing well in Castle Rock, CO where Jim Mills was able to have dinner with them last fall during the GSA meeting.

Chris Bonniwell '94 came to the Department last fall and gave a great talk on the environmental industry (see front page). He tells us that his "daughter starts high school next year, and DePauw has come up." We'd love to see another Bonniwell in the Department!

Connie Dicken '99 has been a Geologist/GIS Specialist at the USGS in Reston, VA for the past 14 years. During this time Connie received her Master's in Geographic and Cartographic Sciences. Connie showed some of her work with Jim and Scott last fall during the GSA meeting.

During a recent visit on Monon Bell weekend, **Nic Brissette '00** shared that he was recently promoted to Senior Geologist at Gunn Oil Company, Wichita Falls, TX. In a note, he says, "Thank you for all you have done, for I wouldn't be where I am today without your expertise."

Jennifer (Berry) Phillippe '01, a Senior Project Manager/Geologist with Wilcox Environmental Engineering, notes that she and her husband have added a third member to the family and that life is good!

Katie Glover '01 is currently at UCLA pursuing a Ph.D. in Geography. Her PhD research involves proxy analyses on cores from Big Bear Valley lakes in the San Bernardino Mountains.

Chris Amidon '02 writes that "I'm very much enjoying the cold North Woods at Voyageurs National Park (MN). Family wise, Tess is 4, Nigel is 2, and Gwen arrived last July!" He also notes that "I... Run the Volunteer Program, Oversee the park's web and social media presence ..., run 2 visitor centers in the summer and all the staff that entails... I do a lot of media creation, writing, and editing, and any time I can do something geology related, I seize it."

Katy (Adank) Ward '05 is an Engineering Specialist at the Railroad Commission in Texas and notes that she has been very busy with all the recent oil & gas activity in the Permian basin. Katy also writes that her husband James got his Professional Geologist license this year and that she will apply for hers this October. They also stay busy taking care of several dogs, horses, and chickens (and soon a baby Ward in early July)!

Eric Rausch '06 recently finished his Master's degree in Higher Education and Higher Education Administration at North Park University.

Phil Mooney '07 was recently hired by Sonoma State University's Geology Department as their new Geologic Technician. Phil remains an avid racing cyclist...you can keep track of his progress at: http://www.strava.com/pros/pmooney.

Charlotte Buehler '08 completed a Masters degree in Geosciences at Mississippi State University in 2010, and is hoping to finish a Masters degree in Public Health at Vanderbilt University this year. She writes, "Thank you again for such a great learning experience at DPU. I remember my 4 years there with such fondness."

David Della Chiesa '08 is now working as a Business Development Manager at Directional Drilling Contractors in Pittsburgh, PA. David recently sent us news of his engagement. And as any good geologist would, David proposed to his girlfriend on Mendenhall Glacier! He also took two clients to the Smoke Hole area where he went with Fred's Field Experiences class. He says, "It was cool to relate what I learned at DePauw and to share it with real life engineering customers today."

Beth Drewes '08 recently stopped in to see us after completing another fall semester as a Geology teacher at the Swiss Semester school in Zermatt, Switzerland.

Alison Barnes '09 advertises on her LinkedIn page that she is "Living life by the seat of my pants - My park ranger pants of course! . . .this has translated into a passion for teaching in an outdoor classroom like our public lands. Not only is it a rewarding opportunity to share with others how captivating and therapeutic the great outdoors can be, I personally discover how much more a place has to teach me.". Tim and Jim can confirm that she is a bonafide desert rat, as she joined their most recent California Winter Term trip.

Andrea Huska '09 is now working on her Ph.D. program at the City University of New York Graduate Center and is continuing research on the source of Bronze Age fluvial tin deposits in western Serbia. She writes, "[I] had to smile seeing the Black Hills Fall Break Trip [in the last newsletter]--I think that may have been my favorite but it's tough to tell, they were all so fun!"

Lauren Schaefer '09 is now pursuing her Ph.D. at Michigan Tech and had her first article published in the Bulletin of Volcanology! Lauren also notes that she received a NASA NESSF graduate fellowship for her proposal "Application of remote sensing and numerical modeling to volcanic hazard monitoring."

Tommy Good '10 reports that he and Kelly are doing well and are now living in the Lincoln Park/Lakeview area of Chicago. Tommy is pursuing his Masters in Education at, yes, DePaul University which he notes is confusing everyone, including himself!

Jay Wellik '10 will begin work this summer as the field and lab coordinator for the Earth Observatory of Singapore.

Maggie Baber '11 now works as a Geoscientist at NEOS GeoSolutions in the San Francisco Bay Area. Part of her new responsibilities include working on the Marcellus and Niobrara shales for which she is analyzing well log data.

Cameron Huffman '11 is shaping young minds as an Earth/Space Science teacher at Bishop Chatard High School in Indianapolis. He notes that he has been successful in turning some of his students into Geology majors upon graduation.

Julia (Shaw) Sessions '11 is still working for Horizon Well Logging and Geosteering in Tulsa, OK. Julia got married to Nephi Sessions last May and had a beautiful ceremony at the Mormon temple in Salt Lake City. In their spare time, Julia and Nephi have been touring the parks of Utah and loving every minute of it.

Rochelle Coffman '12 is living in the Cincinnati, OH area and is actively looking for a position in the environmental consulting industry.

Chloe Lawson '12 is still working as a staff geologist for Soils and Materials Engineers, Inc. in Kalamazoo, MI and loving her job. She notes that she recently got to meet Dr. Ruddiman, a leading researcher in climate change whose book Jim uses in the Weather and Climate class.

Melissa Penfold '12 is a Graduate Teaching/Research Assistant at University of Nevada Reno where she is working on her Master's degree in microstructural geology on a project in NE Bhutan.

Jake Willingham '12 is currently finishing up his MS degree at Indiana State University in Earth and Quaternary Science, where he works in the paleontology/paleoceanography lab. His lab group focuses on collecting deep-sea sedimentary samples in order to examine living foraminiferal fauna and how they are related, both ecologically and morphologically, to pertinent geochemical tracers and environmental parameters, such as oxygen and organic carbon.

Madison Gallegos '13 writes that "I am really enjoying my time here at the Dunes Learning Center (IN). I love my job! I spend all day outside teaching kids about nature (it is literally the best!). I couldn't have asked for a better way to spend my first year out of college."

Bryant Kosanovich '13 is living in Bloomington, IN and is part-time technician with the Indiana Geological Survey on a variety of projects.

Martha Parsons '13 writes that she is having a great time as a Master's student Boston College, but that she does miss making her own thin sections. Well, we can fix that Martha when you come back for a visit! Martha also notes that she's a teaching assistant for the Earth Materials course taught by her advisor and has learned a lot by having to teach the material to other students.

Greg Screws '13 notes that he is currently working for the Peace Corps in Cameroon and has a blog site on his adventures and work: http://mycameroonexperiences.blogspot.com/.

Brittany Slate '13 is working with Big Sister/Big Brother program in Bloomington, IN.

Reilly Taylor '13 recently applied to graduate programs in hydrogeology and is doing well.

Jordan Thomas '13 writes that he is doing well and is pursuing leads for jobs in the environmental consulting industry.

Favorite Geo-Memory: *During sophomore year field method class in Nevada, I found the best volcanic bomb, shaped like a football but larger; I thought it was too big to take home so I left it in the field. At the end of the trip, Dr. Mills explicitly warned us to not talk about (volcanic) bombs at the Las Vegas airport. Immediately forgetting, I reminisced, "I wished I'd brought my bomb". Although I got the look of death, our group was allowed on the plane! Years later, Dr. Mills went back for the bomb, and it's now on display in the department.* **-Katy (Adank) Ward '05**

Photo Gallery

David (PJ) Della Chiesa ’08 giving his girlfriend a piece of “ice” at Mendenhall Glacier, AK.

Jim Mills & Nic Brissette ’00 during a visit this past Fall over Monon Bell weekend.

Petrology class studying magma mingling at Tiemann Shut-Ins, Missouri

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