



Juniata College

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[Geology @ Juniata]

Winter 2017

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Geology Rocks

By Ryan Mathur

professor of geology and department chair

There have been some significant changes happening in the department since the last newsletter. Alumni, students, and faculty gathered for a reception and alumni field trip in the first weekend of April 2016 to honor **J.P. Trexler**, professor of geology emeritus. On Friday evening more than 50 alumni representing six decades returned to P116 to honor the accomplishments of J.P. Trexler through the establishment of a new endowment. Professor Trexler clearly enjoyed the evening of reminiscing and celebration. On Saturday morning we spent four hours driving around looking at the structural geology and geomorphology of the Huntingdon area. The weekend was a wonderful success and professor Trexler still stops me in the Weis market to thank me. Thanks to alumni and friends like you, our department now has two endowments to support geology students at Juniata.

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In the Field



Ryan Mathur and his sons, Nathan and Isaac, check out vents, active hydrothermal systems, and basalt rock textures in Iceland.



In April 2016, alumni, students, and faculty gathered to honor J.P. Trexler. The celebration included an alumni field trip highlighting local assets.



The celebration of J.P. Trexler was wonderfully successful. Both alumni and faculty, as well as Trexler himself, appreciated the opportunity to network and partake of Pennsylvania's geological assets.

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In an effort to integrate the importance of field trips and use the funds generated from the Mutti-Washburn field trip fund and J.P. Trexler alumni fund appropriately, the department has constructed a new course titled Expedition Earth, a two-credit course for students who have taken Introduction to Geology. A requirement for all geology graduates, the class meets once a week to discuss the geologic and environmental aspects of a longer field trip which will take place at the end of the semester. The location of the trip will depend on funds and which faculty member is running the trip. We are developing a web interface so that we can provide images, video, and descriptions of the trip so that all alumni can see the outcomes of their generous gifts each year. All three faculty members are excited to teach a field-based course to newcomers in the geology field.

Classroom P122—the place where you stared at igneous and metamorphic rocks for endless hours—is getting a serious facelift. The College supported the proposal I submitted for new microscopes, tables, and cabinets for this room. We now have microscopes that can wirelessly connect to the projector and other computers in the room. Petrography is now live and the class can project images while staring down the scope. We also acquired new reflected light scopes, which are wonderful for teaching rock textures to the class. These technologies revolutionize how we learn and teach microscopy: I never thought transmitted light microscopy would advance in technology and now it seems we have only scratched the surface with understanding how to use these effectively in class.

We have also acquired new metal cabinetry to store the collection, an acquisition that was supported by the College's internal Kresge funds, which departments are allotted annually. We are attempting to centralize the collection in the rocks room and organize all of the rocks the department owns. As part of his phased retirement, **professor Mutti** is spearheading this effort.

Finally, we need your help to accomplish one last goal I have for the department this academic year. We are attempting to improve the showcases that house fossils and minerals at the entrance into the P-wing. I have worked with the College's Technology Solutions Center to secure a monitor onto which I would like to post information about Juniata College geology graduates, the geology Program of Emphasis (POE), and what exactly geologists do. I envision having a PowerPoint presentation that rotates through various slides, and I am hoping to have alumni highlights from YOU as individual slides. I would greatly appreciate some information about you that I can incorporate into the presentation. Please send me your graduation year, POE title, current location, job title, and some description about what you valued about our program along with several images of you working or vacationing. The department strives to demonstrate the utility of our science and its relevance to everyday life. As such, exposing undergraduates to how they can use their degree is invaluable. I am hoping that we can generate at least 40-50 slides at a minimum. Help us inform our students by sharing your stories.

Send your updates:

mathurr@juniata.edu or Ryan Mathur
 Juniata College, 1700 Moore Street
 Huntingdon, PA 16652

Updates from the Geology Department



Ryan Mathur
 chair, professor of geology
 Another super busy summer has passed, during which I spent three weeks in China doing fieldwork and giving presentations. My family and I headed to Iceland for the Gordon conference in Switzerland, where I enjoyed looking at the glacial features along with the vents, active hydrothermal systems (affectionately called stink pots by the children), and basalt rock textures in Iceland. I am also working to finalize a few publications. This semester, I am excited to be taking my students in Geological Field Methods I on a trip to Seneca Rocks, West Virginia, that will be led by an alumnus.



Matt Powell
 associate professor of geology
 Life has been busy but productive. This summer I began a new research project on late Paleozoic ice age paleoecology, with a student, **Ian Taylor-Benjamin '18**. Ian presented our results at the Geological Society of America conference in Denver—his first conference—and did very well! While there, we ran into several alumni, one of whom is a graduate student in palynology. She helped me and several students with our frustrating, and frustrated, attempts to extract early terrestrial plant spores from local Silurian rocks. We think we've almost got it, but that's what I said last year.



Katy Johanesen
 assistant professor of geology
 In the fall of my second year at Juniata, I feel I am starting to settle in. Last summer I led a research trip to the Blue Ridge Mountains of North Carolina with Adam Ianno, a research associate in geology and chemistry, **Sam Zucker '17**, and **Kaylee Pennell '18** (see photo under Ryan Mathur updates) to study the deformed ultramafic rocks exposed there. We covered much ground and came back with several hundred pounds of samples, which will keep my research students and I busy for a few years. We are planning a shorter trip over spring break to clarify some map relationships and hope to bring in some more students on the project. This fall I'm teaching Structural Geology and Petrography. Ryan Mathur and I took our classes south to the Smokeholes and Harper's Ferry in West Virginia for a field trip focused on interpreting folded rocks. The Mineralogy/Petrology lab has just been upgraded with new petrographic microscopes: students can now take photomicrograph images with their tablets or cell phones and the class can have a discussion over mineral textures projected live from the microscope to the front of the room!



Adam Ianno, Sam Zucker '17, and Kaylee Pennell '18 on an outcrop of metamorphosed ultramafic rock in North Carolina.



Office of College Advancement
1700 Moore Street
Huntingdon, PA 16652-2196

How can you help?

We rely on the support of our alumni, parents, and friends to enhance the experience of our students. We are grateful to those who have already supported the Mutti-Washburn Fund for Field Studies that was established last year and the renamed Geology Alumni Fund which has become the Peter J. Trexler Fund for the Department of Geology. The Mutti-Washburn Fund is still in need of donations so that we can reach the minimum level for distribution. Please use the form below to indicate your gift or give online.

www.juniata.edu/give

Come and support our students when they are in your area, or come to campus to catch a couple of events. We'd love to see you!

Juniata College and Penn State are co-hosting the Field Conference of Pennsylvania Geologists October 5-7, 2017

Return to Juniata to reconnect with fellow alumni, department faculty, and the College while also enjoying a professional development opportunity.



There are three ways to support Geology at Juniata. Please note **Mutti-Washburn Fund for Field Studies, Peter J. Trexler Endowment Fund,** or **Geology Department** in the comments field below or online.

\$500 \$250 \$100 \$50 Other \$ _____

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