Unprecedented. Challenging. Social Distancing. Zoom. Pandemic. Remote learning. These are the words that have defined our last 9 months as a society and the Union College Geology department. Normally, this newsletter would be filled with beautiful photographs of students in the field and in the lab doing research. We would highlight the students presenting at NE GSA and the spring picnic celebration. Faculty would discuss their recent accomplishments in publications, grants, and teaching.

However, given the unusual and difficult circumstances of the past year, we opted for a brief message to let you know how we are doing and are hopeful that there is light at the end of the tunnel. When Union College closed two days before the end of classes in mid-March, none of us knew quite what to expect or the enduring impact of the COVID-19 pandemic. We hastily wrote finals to be administered online and in two weeks prepared to do online teaching via Zoom for the first time. That meant adopting all labs to a remote/virtual format. We attended workshops, invested in GoPros, larger computer monitors, and upgraded our internet speeds. Somehow, we all made it through the spring term – faculty and students were truly learning together and maintaining our sense of community. We even held a virtual Dinner & Disasters and spring picnic!

All of our summer field seasons were cancelled, including trips to Peru and Alaska with students. In July, we had a limited return to campus and the research labs were re-opened. In the fall, most students returned to Union’s campus, but all Geology classes were taught remotely. Faculty held synchronous classes and continued to engage deeply with students, albeit in a different way. As we look to the winter and spring terms, we expect most classes to remain online, but are hopeful that field trips can resume later in the spring or summer. We are all grateful to be healthy and empathize with those of you who have experienced loss, be it a loved one, a job, or mental health. We hope for a better 2021 and wish all of you safe and happy holidays!

Prof. Holli Frey
Department Chair
We say goodbye and hello

In 2020, we said goodbye to two long-standing fixtures in the department, administrative assistant Deb Klein who retired in January after more than 10 years with the department, and technician Bill Neubeck, who retired after more than 35 years in June. We were able to celebrate Deb with the students in November and with a final holiday party in June and lauded her contributions to the department in the 2019 newsletter. Unfortunately, we did not get to honor Bill in person, but offered thoughts via Zoom. For decades, Bill has been a mainstay in the department, building countless tools and equipment to assist faculty in their teaching and research, making the most beautifully polished thin-sections, and helping to keep all of the instruments maintained. His skill set was truly unique and we will not find another person to match him. Both Deb and Bill are missed by all and we wish them the best in retirement!

In February, we hired a new administrative assistant, Christine Angley. Chris joins us from a recent stint in the Becker Career Center, but has a long history at the college, working in the Union Graduate College from 1999-2013. A little more than a month into her tenure, Union closed due to the pandemic, so we have gotten to know Chris online. She cares deeply about her job and Union and has been spending time with family a new grandson during these unsettled times. We look forward to all being back together in the office this fall.

Student Highlights

In June, we graduated six geology majors, Steve Camarra, Alaina Chorman, Jaclyn Gehring, Dan Goldman, Laura Picirillo, and Rohit Thota, as well as ID majors, Jenna Smith and Whitney Schwaab. Alaina and Jaclyn were awarded the Smith Prize for highest professional potential in the field of geology and have begun graduate programs at Iowa State and Northeastern, respectively. Laura received the Faculty Prize for contributions to the department and is pursuing a Masters degree at Memorial University. Alaina, Jaclyn, Laura, and Steve received departmental honors for their thesis defenses. The seniors did not get to have an in-person graduation and faced a tough job market during the pandemic and we hope to celebrate with them in the future at ReUnion.

We awarded Wold Tuition Scholarships to four outstanding students who exemplify excellence and hard work – Blake Newcomer ‘21, Kaylee Velasquez ‘21, Ian Plummer ‘22, and Grace Levins ‘23. We look forward to their continuing contributions to the department.

Faculty Highlights

Mason Stahl, the most junior member of our department, was successfully reappointed and was lead PI on a grant funded by the National Science Foundation Major Research Instrumentation (NSF-MRI) program. The instrument, a cavity ring-down spectroscopy (CRDS) water isotope analyzer, will be used in several future projects in the department and will support the research of Stahl, as well as Gillikin, Rodbell, Frey, and Verheyden-Gillikin, who were all co-PIs on the proposal.

For her paleontology course, Anouk Verheyden-Gillikin used some cool virtual 3D fossils available on the Digital Atlas of Ancient Life website. In addition, Anouk has ensured the isotope lab was open and fully operational for research students and courses this fall.

Holli Frey offered two new courses, Hot Topics in Cool Science (a team-taught course with 4 other science faculty) and Climate Change: Knowledge Empowers Action (co-taught with a mathematician and an economist) during the pandemic to engage Union students with science. For the latter course,
students learned about climate change from multiple perspectives and how to use scientific arguments and data to counter climate change skeptics/deniers. Her other “new course” was elementary school remote learning in the spring with her two young daughters.

Just one year ago, David Gillikin was in Panama with 14 amazing Biogeochemistry students studying carbon cycling. A lot has changed since then, but he still enjoyed teaching and research during the pandemic. This year he is working with a great group of research students unraveling stalagmite and clam-shell paleoclimate records. Students have been busy drilling and analyzing isotope samples, as well as shooting lasers for elemental concentrations, albeit with masks and social distance.

John Garver continues working on and communicating about the Mohawk River through his blog Notes from a Watershed. In the fall, he investigated the Giardia outbreak that affected 32 Union students and others in Schenectady and he was recently on WAMC explaining the use of ice breakers to mitigate ice jams.

For the field-based structural geology course, Matt Manon took advantage of some innovative virtual field trips and students rose to the challenge of virtual geologic mapping. As the labs slowly began to re-open at the end of June, Matt was able again to work with students on research projects utilizing the SEM and ICP-MS.

Kurt Hollocher notes that faculty had to deal with wildly new and changing mental states involving stress, isolation, abandonment, angst, and panic. Many hours were spent learning Zoom and other online software. He was also introduced to the promise of GoPro cameras for recording field trips (mostly Kurt talking to himself and pointing at rocks according to Kurt).

Don Rodbell reports that while he is no fan of teaching by Zoom, it felt like one of the few connections with the outside world! Time between Zoom sessions has been filled with writing a grant proposal and several manuscripts, gardening, hiking with his two German Shepherds, and a new found hobby: bee keeping. He is looking forward to the day that he can return to field work with students.

Jacquie Smith taught Environmental Geology (GEO-112) remotely from Maine during the fall term and gave a talk on microplastic pollution in the tributaries of the Mohawk River for the Albany Pine Bush Preserve’s Science Lecture Series in October. Research into contamination of the Hans Groot Kill continued and this work prompted the formation of a community group focused on remediation of the stream.

John Garver and Jacquie Smith were all set for the 12th annual Mohawk Watershed Symposium that was to be held on 20 March, but they cancelled it in early March due to the pandemic. The extended abstracts are available online.

Union College Geology

Email: geology@union.edu
Web: https://www.union.edu/geology

Follow us on social media: https://www.facebook.com/UnionCollegeGeologyClub #unioncollegegeology

Send alumni updates to angleyc@union.edu for inclusion in next year’s newsletter.