

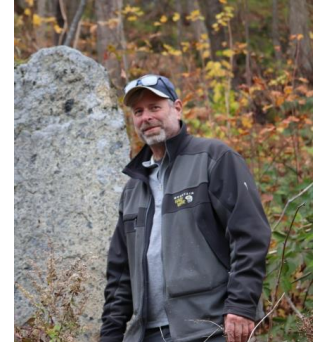


2024 Newsletter

Geosciences

Message from the Chair

It is my pleasure to provide my first Department Chair's Message as the first Chair of the Department of Geosciences. As you may know, our department was established officially on July 1, 2023, when the Departments of Earth Sciences and Geography merged. Our faculty and staff, our major programs in Earth Sciences, Environmental Geography, Geography, and Geology, and our minor and certificate programs are all now in the new department. The Urban and Regional Planning program and faculty relocated to the Department of Political Science, Public Administration, and Planning. Geosciences brings together the campus' earth, environmental, climate, planetary science, GIS, and human geography expertise.



Dr. Gary Solar

The merger facilitates greater collaboration and opportunities for undergraduate student research and supports our commitment to applied learning and mentoring that were hallmarks of both previous departments. Visit our Geosciences department website for details and for our department calendar

I want to thank the members of the department faculty and staff, and the Dean's Office of the School of Arts and Sciences, for their efforts to make the merge a success, and for their efforts during this first year. In most ways our students continued with their courses of study as before, but also were afforded some new experiences. Notably, we had our first combined Alumni Networking Event on February 27, 2024, that featured over 20 alumni participants. Current students got to hear advice and about career paths. See the highlight in this newsletter. Thank you to those who came and offered their experiences. We would like to welcome all alumni interested at future events. We plan on having two such occasions in this coming academic year, one per semester. Do not hesitate to contact us if you would like to participate. We would love to see you, and the students will be the better for it.

In this newsletter, you will find details of our faculty, staff, and student accomplishments from this past year. Our department is home to the Whitworth Ferguson Planetarium, so you'll find a report about our hosting of Buffalo State's "EclipseFest" and related events for the total solar eclipse that occurred April 8, 2024. You'll read about the start of a new student chapter of the New York Water Environment Association. This newsletter recounts the many student awards and undergraduate research experiences that were celebrated at our first department banquet, May 6, 2024.

We have had some interesting times navigating our newly merged dynamic. As a geologist, I had to learn a great deal about geography. I believe the geography faculty and staff had to learn a lot about me too! I have had a terrific time getting to know all of our remarkable students. They have always inspired me, now more so in our merged family. In closing, I hope to see as many of you as possible at our alumni networking events this year, including the end of the year banquet. Again, please contact us with your interest. As always, we want to provide our students with the best opportunities we can facilitate. Your participation is crucial to realizing that goal. Thank you in advance! - GS

2023-2024 Geoscience Department Graduates

Environmental Geography B.S.

Kelley Hoffman
Kathryn Furtney
Caitlyn Parsons
Madison Palmatier
Brittany Fiore
Caitlyn Parsons

Earth Science B.S.

Skyler Braeges
Marcella Rodgers
Zalue Saylee
Devin Prokop
Sam Hellert
Arden Schadt
Denzel Dixie
Joseph Rodriguez

Geology B.S.

Xavier Orton
Dylan Maciejewski

Geography B.A.

Jonathan Bell
Cameron Murphy

David Bullough Memorial Award for Academic Excellence — Cameron Murphy



Cameron Murphy

The **David Bullough Memorial Award for Academic Excellence** (named after the son of the late Vern Bullough, former Dean of SNSS) is awarded to the student minoring in Geography, Meteorology & Climatology, or GIS with the highest minor GPA who will not be receiving another departmental award that semester.

Cameron completed a dual major in Geography and Urban and Regional Planning, along with the Geographic Information Systems (GIS) Certificate, GIS Minor and the Geospatial Techniques Micro-credential, maintaining a high GPA in each of these programs.

While at Buffalo State, Cameron worked as the student assistant for the Environmental Health and Safety office for two years. In this position, he was responsible for updating the campus stormwater infrastructure GIS layers, sampling outfalls, inspecting campus green infrastructure systems and monitoring stormwater flow data for possible illicit discharges into campus storm drains.

Cameron presented two posters at this year's 26th annual Research and Creativity conference, both using GIS. After graduation, Cameron will be working for the Clark Patterson Lee as a Planner. He will be continuing his education in Arizona State University's online master's degree in Geography for fall of 2024.

Cameron and Devin will receive a \$50.00 check and a certificate from the Geosciences Department. Congratulations, Cameron!

**Katheryne T. Whittemore Award for
Outstanding Student in Geography & Planning —
Kelley Hoffman and Katie Furtney**



Kelley Hoffman

Named after the founding member of the former Geography and Planning department, this award is given to the most out-standing senior in the Environmental Geography B.S or the Geography BA. This is our most prestigious award. Students must have demonstrated their ability and commitment to the major, above and beyond a good GPA.

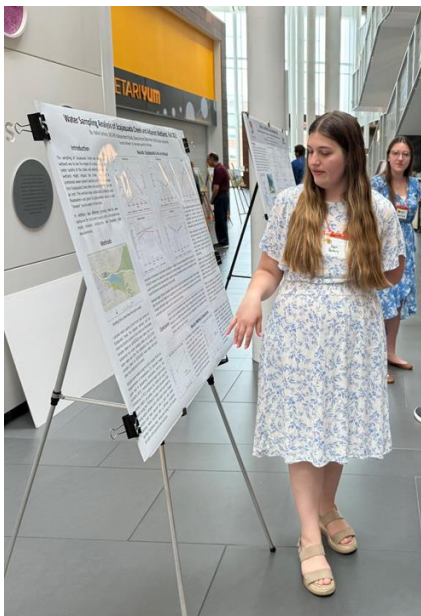
Kelley Hoffman completed the Environmental Geography B.S. and the Geographic Information Systems (GIS) Certificate while maintaining a very high GPA. She received universal praise from faculty noting her penchant to go 'above and beyond' in departmental course work. She prepared an excellent proposal on the impacts and spatial patterns of noise pollution on owls for the capstone Research Methods course.

She also did an internship with the Erie County Department of Environment and Planning - Office of GIS. Her main internship task involved working with the Highways Office of Public Works to create a map of Erie County's stormwater infrastructure, but she also created a map of Brownfield Cleanup Programs sites and a contour map of snowfall totals from the Buffalo blizzard of December, 2022. She was also our Dean's Medal recipient.

Kathryn Furtney completed the Environmental Geography B.S., the Environmental Science and Society Certificate and the Muriel A. Howard Honors Program, all while maintaining a very high GPA throughout.

Katie traveled and studied in Italy as part of Buffalo's Siena Program and is a recipient of the Katheryne T. Whittemore Travel and Research Award for study away programs. Katie took on field and lab work along the Scajauada Creek, conducting a water sampling analysis of the creek and an adjacent wetland. She presented her findings at this year's 26th Research and Creativity conference.

Kelley and Katie will have their name engraved on the plaque located in the Department and each will receive a \$100 check. Congratulations, Kelley and Katie!



Kathryn Furtney

Chair's Discretionary Award — Jonathan Bell



Jonathan Bell

The Chair's Discretionary Award is given at the discretion of the chair, after consultation with faculty. The award is given to a student who has made an outstanding contribution to the department or college, through a particular effort in research, education, or community involvement.

Jonathan's dedication, careful planning, and hard work have allowed him to rack up numerous degrees including a BA in History, a BS in Environmental Geography, the Minor in Environmental Science, the Undergraduate Environmental Science and Society Certificate, the Minor in GIS, the Undergraduate GIS Certificate, and the Microcredential in Geospatial Techniques!

As he's done this, Johnathan has quietly impressed the faculty who have worked with him. He has maintained excellent attendance, contributes to class, and is a great team member on group projects. He's engaged in class as well as departmental activities like GIS Day and recently attended the GIS/SIG Conference in Rochester, NY with Mary Perrelli.

Jonathan will receive a book chosen for him by the chair, as well as a certificate from the Geosciences Department. Well done, Jonathan!

National Center for Geographic Education Excellence of Scholarship Award (Geography) — Madison Palmatier



Madison Palmatier

The **National Center for Geographic Education Excellence of Scholarship Award (Geography)** recognizes outstanding academic achievement of a Geography major. The primary criterion of this award is academic performance. Secondary criteria can include departmental service, dedication, and enthusiasm.

In addition to her Environmental Geography major, Madison is also completing the Environmental Science minor and the Geographic Information Systems (GIS) undergraduate Certificate. Furthermore, she has maintained a high GPA in these programs. She also wrote and excellent research proposal on the response of alpine vegetation in the Adirondack Mountains to climate change.

Outside of the classroom, Madison is a member of Buffalo State's NYWEA student chapter and is enrolled in the Geospatial Technology honors society (Gamma Sigma Theta). Madison also traveled to Kenya to study conservation and is a recipient of the Katheryne T. Whittemore Travel and Research Award.

Madison will receive an award from the NCGE as well as a certificate from the Geography and Planning Department. Nicely done, Madison!

National Honor Society for Geospatial Technology- Gamma Sigma Theta

New for this year is the Department's participation in the Geospatial Technology Honor Society sponsored by the GeoTech Center. Students receive various benefits from membership including a free one-year membership to the Urban Regional and Information Systems Association (URISA) and the American Society for Photogrammetry and Remote Sensing (ASPRS), free access to the GIS Certification Institute practice tests and access to the GIST LinkedIn page for networking. Students selected for membership in the National Honor Society for Geospatial Technology must meet the following requirements:

- 3 Geospatial Technology courses with a 3.3 or greater GPA
- An overall GPA of 3.0 or greater
- Evaluation of a class project

Inductees receive a certificate and a red, green and blue honors cord. This year's inductees include:

Kelley Hoffman (EVG)

Peter Lukasiewicz (URP)

Cameron Murphy (URP, GEG)

Madison Palmatier (EVG)

Caitlyn Parsons (EVG)

Mike Kalinka (GLES)- graduate student

Geology and Earth Science Awards

The Raphael Yalkovsky Award for excellence in science writing –
Skyler Braeges

Planetarium Director's Volunteer Award-
Skyler Braeges and William Woicak

David Bullough Memorial Award for Academic Excellence —
Devin Prokop

The John Murtaugh Award for excellence in geological field work -
Dylan Maciejewski

The Carl Seyfert Award for excellence in geology- Sam Hellert

The Irving Tesmer Award for excellence in geology – Marcella Rodgers

Dean's List Students

Geoscience Department majors who have complete at least 12 credit hours and maintain a minimum grade point average of 3.5 for a term qualify for the Buffalo State Dean's List. Congratulations to all our Dean's List students.

Spring 2023

- Daniel Krieger
- Ralph Garrett
- Emily Meidel
- Allison Panek
- Cal Tomaka
- Sam Hellert
- Sage Lambie
- Owen Weiner
- Kelley Hoffman
- Cameron Murphy
- Devin Prokop
- Will Woiccak
- Samantha Kaufman
- Nicholas McDougal
- Madison Palmatier
- Marci Rodgers
- Jezebel Sunshine

Fall 2023

- Heather Buskist
- Ralph Garrett
- David Kicak
- Sophia Palma
- Emily Rennicks
- Cal Tomaka
- Gavin Clayton
- Alec Henry
- Sage Lambie
- Madison Palmatier
- Marci Rodgers
- Madison Edwards
- Kelley Hoffman
- Emily Meidel
- Allison Panek
- Zalue Saylee
- Kathryn Furtney
- Samantha Kaufman
- Xavier Orton
- Devin Prokp
- Arden Schadt

Alumni Networking Events

The Geoscience Department hosted an alumni networking event in the spring of 2024. Alumni from the former Earth Science and Geography and Planning Departments were invited. The event included a networking reception followed by a question-and-answer period. Students gained valuable job tips and insights into courses and skills needed to transition successfully to the workforce. We hope to plan similar alumni events for the Spring and Fall in the 2024-2025 academic year. If you are interested in being part of a future alumni event, please email Mary Perrelli at perrefmf@buffalostate.edu.



Total Solar Eclipse- Eclipse Fest at Buffalo State- Kevin Williams

On April 8, 2024, we all experienced the result of this incredible dance between Earth, Moon, and Sun together. It's estimated that this solar eclipse was the most viewed astronomical event in history. Whether people experienced a partial eclipse or the total eclipse, whether they were alone or in large gatherings, or whether they had clear skies or were entirely overcast, for a few hours on April 8, hundreds of millions of people across North America were able to experience the total solar eclipse of 2024. With so many things that divide us, it is worth remembering that events like this bring us together. In that context, I believe this eclipse is even more incredible than the amazing views of the partial phases and the beautiful corona during totality. It is a cosmic event with a heavy dose of humanity.

The eclipse has also brought many of us on campus together as we planned several events leading up to Eclipse Fest! Brainstorming and logistical planning among departments across campus led to amazing activities and great exposure of Buffalo State to the community. There are too many people to thank individually, but my co-chair for the campus Eclipse Task Force, Bernadette Matre, was instrumental and invaluable in all aspects of making everything a success. Additionally, Fox Connelly, the planetarium's associate director, went far above and beyond organizing the observing area for Eclipse Fest and other volunteers and as we welcomed roughly 4,000 fourth- through 12th-grade students and over 1,100 members of the public to campus to learn about eclipses in the Whitworth Ferguson Planetarium.

The next total solar eclipse will be on August 12, 2026, and will be visible from parts of Russia, Greenland, Iceland, Portugal, and Spain as the Moon's shadow passes over the northern latitudes of Earth. The next total solar eclipse in the United States isn't until 2044, and the next one to pass over Western New York isn't until 2144!



Photo Credit: Mary Perrelli



Photo Credit: Dr. Dan Potts

Student Highlights

Heather Buskist (Geology) – Conducted research with Dr. Solar on Porphyroblast-matrix fabrics surrounding the Log-Jam schist, CT

***Kathryn Furtney (EVG)** – Katie worked with Dr. Vermette and Professor Perrelli on a waters sampling analysis of Scajaquada Creek and an adjacent wetland in Forest Lawn Cemetery. She presented this research at the student creativity celebration.

***Dylan Maciejewski (Geology)** – Conducted research with Dr. Solar on Field and Laboratory Study of the Nature of the Migmatite Front at the Foot of Mount Washington, Gorham, New Hampshire. He presented this research at the student creativity celebration.

***Allison Panek (EVG)** – Allison worked with Dr. Vermette and Professor Perrelli to complete a water quality assessment for Lake Hiram, NY.

Erin Zeller (ES) – Worked with Dr. Williams on a project to Increase Middle School Engagement in ST(R)EAM through astronomy activity kits.

***Brennan Postich (URP/GIS Cert)** – Gave a lightning talk at the 2024 GIS/SIG annual conference on his land use research in Lackawanna, NY using Supervised Classification and presented this at the student creativity celebration

***Cameron Murphy (Tang)** Quantitative Spatial Analysis of Urban Sprawl in Erie County. Presented his research at the student creativity celebration

***Madison Palmatier (Tang)** Land Use and Land Cover Around Lake Naivasha, Kenya

* Presented research at the 2024 Buffalo State Student Research & Creativity Conference

Faculty Highlights

Dr. Elisa Bergslien - Campus Coordinator of the New York State Science Olympiad and the Buffalo State Expo.

Dr. Fox Connelly - Events coordinator for EclipseFest

Dr. Camille Holmgren - Dr. Holmgren and her graduate school advisor and long-time colleague Dr. Julio Betancourt were interviewed separately by Arizona Public Media, the PBS affiliate in Tucson, AZ. Dr. Holmgren's part was filmed at the University of Arizona Desert Laboratory where she worked as a graduate student and Picacho Peak, AZ. The result is a short feature entitled "Packrat Time Machine" on their research using fossil rodent middens, which aired in Arizona on the weekly PBS show Arizona Illustrated. Click the link to watch the program <https://www.azpm.org/p/video/2023/7/11/216700-packrat-time-machine/>

Mary Perrelli - Co-sponsor of the new Buffalo State student chapter of the New York Water Environment Association (NYWEA). Faculty advisor for the new National Honor Society for Geospatial Technology.

Dr. Gary Solar- Nominated for election to the Geological Society of America Fellows. Nominated by other GSA Fellows in recognition of a sustained record of distinguished contributions to the geosciences and the Geological Society of America.

Dr. Tao Tang- Awarded The Buffalo State Campus/Community Sustained Partnership Award from the Dr. Katherine S. Conway Turner Office of Civic and Community Engagement Office. In recognition for his course partnerships with the Office of Geographic Information Services, Erie County Department of Environment & Planning.

Dr Vida Vanchan- One of the lead faculty members of The SUNY/CUNY Southeast Asia Consortium (SEAC). Funded by a \$550,000 grant from the Henry Luce Foundation Initiative on Southeast Asia, SUNY/CUNY SEAC is a statewide consortium designed to promote research, teaching, and related efforts around Southeast Asia and Southeast Asian Americans in New York's public universities.

Dr. Stephen Vermette -Appointed to the Board of the Erie County Soil and Water Conservation District. Presented "Extreme Weather in a Warming World" for a 3-week course for teachers in New York's Master Teacher Program, and for several organizations across the area. Published two local articles in Buffalo Rising: "Creeping Normality: What is Normal Weather?" and "The Golden Snowball: It's a 'Threepeater' for Buffalo!"

Dr. Kevin Williams - Dr. Williams selected to receive the SUNY Chancellor's Award for Excellence in Service.

Alumni, we want to hear from you! Where are you? What are you doing? Please contact the department so you can be featured in our next newsletter. Email: Mary Perrelli at perrelmf@buffalostate.edu