

Samantha Indira Khatri

Samanahta.Khatri@uga.edu

Education

University of Georgia (UGA), Athens, Georgia May 2022

Master of Science, Geology

Awarded Department of Geology Outstanding Graduate Student

Winona State University (WSU), Winona, Minnesota May 2019

Bachelor of Science, Geoscience, Geography Minor

Awarded Outstanding Graduate Award for Geology

Research Experience

Tidal Influence in a prograding Cretaceous coastal plain: Hell Creek Formation near Marmarth, North Dakota – Masters Research, UGA Aug. 2019–May 2022

- Developed thesis project to determine the nonmarine sequence-stratigraphic architecture and the degree of tidal influence in the Hell Creek Formation. Research and analytical emphasis on identification of facies, paleosol type and maturity, channel stacking, tidal influence, and nonmarine sequence stratigraphy. Presented at GSA Connects 2021.
- Funded by GSA, SVP, Paleo Society, UGA

Faunal Analysis of a fossil microsite from the Late Cretaceous Hell Creek Formation, North Dakota – Undergraduate Research, WSU Aug. 2016 – Fall 2018

- Collected microfossils and bulk sediment samples from a fossil microsite in the Hell Creek Formation. Identified taxa, documented the presence and abundance of taxa, and interpreted the depositional environment of a fossil microsite to provide greater environmental context and depositional information for nearby dinosaur excavation sites. Presented at GSA Meeting 2018.
- Funded by GSA, WSU

Measuring *Tyrannosaurus rex*'s binocular vision – Undergraduate Assistant, WSU Fall 2017

- Assisted in measuring adult and juvenile *T. rex* skull casts including interpupillary distance, field of view of each eye, and snout length. Visited Quarry Hill Nature Center and the Burpee Museum of Natural History to examine *T. rex* skulls.

Publications and Presentations

First Author

- **Khatri, S.I.**, Holland, S.M., and Beatty, W.L., 2023, Tidal influence in a prograding Cretaceous coastal plain: Hell Creek Formation near Marmarth, North Dakota: *Sedimentology*. [under review].
- **Khatri, S.I.**, Beatty, W.L., Holland, S.M., 2021, Nonmarine sequence-stratigraphic architecture of the Upper Cretaceous Hell Creek Formation, near Marmarth, North Dakota: *Geological Society of America Abstracts with Programs*, v. 53, no.6.

- **Khatri, S.I.**, Beatty, W.L., 2018, Faunal analysis of a fossil microsite from the Late Cretaceous Hell Creek Formation, North Dakota: Geological Society of America Abstracts with Programs, v. 50, no. 6.
- **Khatri, S.I.**, Beatty, W.L., 2018, Analysis of a microsite from the Late Cretaceous Hell Creek Formation, North Dakota: Winona State University Ramaley Research Celebration Program and Book of Abstracts, v. 12, p. 52.

Contributing Author (Poster Presentation)

- Beatty, W.L., Ruhland, N.E., Davitt, S.E., **Khatri, S.I.**, and Schroeder, A.J., 2022, Megaflora fossils from a dinosaur excavation site in the Late Cretaceous Hell Creek Formation of western North Dakota: Geological Society of America Abstracts with Programs, v. 54, no. 5.

Fieldwork Experience

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- Reconnaissance field work in North Dakota, South Dakota, and Montana** Summer 2023
- Arranged and conducted nine weeks of fieldwork on public and private land in the Fox Hills, Hell Creek, Fort Union, and Cannonball Formation.
- M.S. Research near Marmarth, North Dakota** Summer 2021
- Arranged and conducted six weeks of fieldwork on public and private land in the Hell Creek Formation near Marmarth, North Dakota.
- Indiana University Geologic Field Station, Montana, Tobacco Root Mtns.** Summer 2018
- Six-week field course focusing on mapping and reconstruction of the geologic history of complex structures (Precambrian to Paleogene stratigraphy); stratigraphic correlation and crystalline rock investigations.
- Undergraduate Research near Marmarth, North Dakota** Summer 2016
- Conducted one week of paleontological and sedimentological fieldwork in the Hell Creek Formation. Investigated the depositional environment and paleobiology of a fossil microsite.
- Black Hills, South Dakota** Summer 2015
- Two-week field course with an emphasis on geological field mapping, local geologic structures, and history of local tectonics (Precambrian to Tertiary).
- Marmarth, North Dakota** Summer 2015
- Two-week field course with an emphasis on techniques and practices of paleontological (Late Cretaceous and Early Paleogene) field and lab work. Topics included locating fossils, excavating, jacketing, transporting, and preparing fossils.

Relevant Work Experience

Graduate Teaching Assistant – UGA

Fall 2019–Present

- **Instructor of Record:** Earth's History of Global Change Lab (Fall 2020, 2021), Exploring Earth's Surface: Landforms and Environments Lab (Fall 2022), Earth Processes and Environments Lab (Fall 2019, 2023). Average student approval rating of 4.8/5.
- **Assisted Lectures and Labs:** Dinosaurs: Lifestyles of the Big and Famous Lecture (Fall 2023), Earth's History of Global Change Lecture (Fall 2020, 2021), Exploring Earth's Surface: Landforms and Environments Lecture (Fall 2022), Sedimentary Geology Lecture and Lab (Spring 2020, 2021, 2022, 2023).
- **Responsibilities:** Design and lesson-plan weekly labs, collaborate with professors to create exams and quizzes for lectures and labs, teach review sessions before midterms and finals, assist professors in courses ranging from 20–100 students, present lectures in professors' absence, set up and disassemble lab specimens, hold weekly office hours, and grade written assignments, labs, quizzes, midterms, and final exams.

Lab Coordinator – UGA

Fall 2022

- **Directed Lab:** Earth's History of Global Change Lab
- **Responsibilities:** Worked with faculty to revise course syllabus, lab assignments, and final exam. Held weekly lab meetings with graduate teaching assistants to communicate weekly responsibilities and review lab material.

Paleontological Field Guide – Hell Creek Fossils LLC

Summer 2022

- Conducted full-day dig expeditions for groups between 5 and 12 individuals ranging in ages from 12-75 for 6 weeks in the badlands of North Dakota.
- **Responsibilities:** Aided participants in hiking, digging, field jacketing, fossil preparation, and fossil identification. Assessed participants' physical needs for rest, water, shade, and food and provided such when requested or needed.

Field Teaching Assistant – Black Hills, SD Travel Study Course WSU

May 2019

- Assistant for a two-week field-based course in the Black Hills of South Dakota. Supervised students while in the field and aided them in navigating through forested areas with topographic maps and handheld GPS devices.
- **Responsibilities:** Assessed and assisted students on geological field mapping, techniques of field-based research (notetaking, navigation, sample collection), local geologic structures, and history of local tectonics (Precambrian to Paleogene).

Undergraduate Teaching Assistant – WSU

Fall 2015–Spring 2019

- **Assisted Labs:** Dynamic Earth, Earth and Life Through Time, Catastrophes and Extinctions, Field and Analytical Methods, Sedimentology and Stratigraphy, and Structural Geology.
- **Responsibilities:** Assisted faculty with lab instruction, assessed students' needs and progress under the instructor's direction, set up and disassembled lab specimens, retrieved vans from the university motor pool, and graded and recorded assignments.

Service and Volunteer Activities

Graduate Student Association (UGA) – Council Secretary Fall 2023-Present

- Maintain records of all meetings and committee updates. Record meeting minutes and ensure their accessibility online. Manage the Graduate Student Association website, social media accounts, and public calendar. Produce and distribute email updates, event flyers, and newsletters to graduate students. Coordinate communications between council members and graduate committees.

Educational Affairs Committee (UGA) – Graduate Student Rep. Fall 2023-Present

- Represent the academic interests of graduate students to the Educational Affairs Committee and the University Council. Participate in monthly meetings to discuss educational policies and related university academic matters.

Diversity, Equity, and Inclusion Committee (UGA) – Graduate Liaison Fall 2023-Present

- Serve as the Graduate Liaison between the DEI Graduate Committee and the Graduate Student Association Council (GSA). Communicate the needs of the DEI Graduate Committee to the GSA Council to help arrange and facilitate programs, activities, and events that promote a welcoming environment for graduate students to feel respected, included, and supported.

Office of Global Engagement Scholarship Committee (UGA) – Graduate Reviewer Fall 2023-Present

- Review and evaluate ~30 undergraduate study abroad scholarship applications for 10 specific scholarships and fellowships. Recommend qualified students by issuing written reports and scores to the Office of Global Engagement at the University of Georgia.

Franklin Student Activity Fee Allocation Committee (UGA) – Graduate Student Rep. Fall 2023-Present

- Review UGA Franklin College student organization funding requests. Discuss how funding will be distributed and how much will be allocated to each organization.

The Classic Journal Editorial Board (UGA) – Graduate Literature Reviewer Fall 2023-Present

- Review and edit undergraduate article submissions for The Classic Journal to promote undergraduate student writing and provide undergraduates with the experience of the publishing process.

Georgia Museum of Art (UGA) – Student Volunteer Fall 2023-Present

- Aid with educational programs and help visitors engage with exhibits. Serve as a greeter, provide directions within the museum, and answer questions pertaining to exhibits. Assist with special events and parties by helping with setup, registration, and cleanup.

SEPM Student Committee – Graduate Student Member Summer 2023-Present

- Serve as a graduate student member to help develop programs and initiatives that encourage undergraduate and graduate students to become involved in the Society of Sedimentary Geology.

Concrete Jungle, Athens, Georgia – Volunteer Fall 2019-Present

- Pick and harvest fruits and vegetables from local, overlooked, and under-utilized urban fruit trees as well as excess produce from local farms for donation to local and regional food banks to help communities experiencing food insecurity.

- Women in Science Mentorship Program** (UGA) – Graduate Mentor Fall 2022-Spring 2023
- Served as a mentor to undergraduate students. I provided guidance and advice on academic life, applying to graduate school, and how to accomplish undergraduate research.
- SEPM Poster Judge** (GSA Connects) – Volunteer Fall 2022
- Interacted with students to assess their understanding of their projects, scientific process, and their ability to explain their work clearly. Evaluated and scored student posters and provided feedback.
- Graduate Student Association** (UGA) – Graduate Department Rep. Fall 2020-Spring 2022
- Represented graduate students from the Geology Department and served as a voting member for the Graduate Student Association (GSA). Attended all GSA council meetings and conveyed information between GSA and geology graduate students.
- UGA Geology Department Representative** – Graduate Student Rep. Fall 2020-Spring 2022
- Represented current geology graduate students and served as a liaison between the Department of Geology faculty and its graduate students to help facilitate departmental events and programs.
- Student Advocacy and Campus Issues Committee** (UGA) – Graduate Rep. Fall 2020-Spring 2021
- Collaborated with committee members to identify and research graduate and professional students' needs and advocated to lower graduate student fees and improve student healthcare access.
- Geology COVID-19 Support Team** (UGA) – Graduate Student Volunteer Fall 2019-Spring 2020
- Served students within the UGA geology community experiencing acute hardships owing to pandemic-related stresses with the goal of creating a strong supportive student-lead network. Collaborated and communicated with UGA Student Care and Outreach to develop a survey for geology students to request a variety of services including meal delivery, grocery pick-up, note-taking assistance, pet care, and virtual support through Zoom.
- College of Science and Engineering Council** (WSU) – Student Rep. Fall 2017-Spring 2019
- Represented the College of Science and Engineering as ambassadors to promote WSU to current and prospective students. Served as a liaison between students and the Dean of the College of Science and Engineering to provide perspective and insight into undergraduate student life.
- Annual Astronomy Day** (WSU) – Student Volunteer Fall 2017-Spring 2018
- Interacted with and educated students and community members of all ages about various types of meteorites. Aided students and community members with operating a telescope to view planetary bodies at night.
- WSU Geology Club** – Vice President Fall 2017-Spring 2018
- Assisted the President in carrying out activities of the Geology Club. Monitored record-keeping and presided over meetings in the absence of the President. Acted as a liaison between external organizations and the Geology Club.
- Annual National Fossil Day** (WSU) – Student Volunteer Fall 2016-Fall 2018
- Interacted with and educated students and community members of all ages about various fossil specimens on display. Fossils included Cretaceous dinosaur teeth and bones, as well as teeth from various herbivores, omnivores, and carnivores to show how eating behavior can be interpreted for extinct animals.

Grants, Honors, and Awards

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| Sigma Xi Grant in Aid of Research Award | 2023 |
| Society of Sedimentary Geology Student Research Grant | 2023 |
| Tobacco Root Geological Society Research Award | 2023 |
| Colorado Scientific Society Student Research Grant | 2023 |
| Department of Geology Outstanding Graduate Student Award (UGA) | 2021-2022 |
| Graduate School Domestic Travel Grant (UGA) | 2021 |
| Miriam Watts-Wheeler Graduate Studies Travel Grant (UGA) | 2021 |
| Outstanding Teaching Assistant Award (Center for Teaching and Learning, UGA) | 2020-2021 |
| Society of Vertebrate Paleontology Patterson Student Fieldwork Grant | 2020 |
| Geological Society of America Graduate Student Research Grant | 2020 |
| Paleontological Society Stephen Jay Gould Student Research Award | 2020 |
| Gilles and Bernadette Allard Geology Research Award (UGA) | 2020 |
| Outstanding Graduate Award for Geology, (WSU) | 2019 |
| Tuftin Award for excellence in academics, aptitude for fieldwork, and departmental service (WSU) | 2019 |
| GSA North Central Section Student Travel Grant | 2018 |
| Geoscience Alumni Leadership Endowment (GALE) Award, (WSU) | 2018 |
| Anadarko Scholarship, IUGFS Field Camp | 2018 |
| Coulee Rock Club of La Crosse, WI Scholarship | 2017 |
| Undergraduate Student Research and Creative Projects Grant (WSU) | 2016 |

Relevant Skills

Software: GIS ArcMap, R programming, Adobe Illustrator and Photoshop, Microsoft Office Suite.

Field: Paleosol and facies identification, measurement of stratigraphic columns, field fossil jacketing, and geologic mapping.

Laboratory: Petrographic thin-section preparation and interpretation, micro-sandblasting fossil preparation, fossil specimen cataloging, familiar with X-ray diffraction.

Relevant Workshops and Courses

Workshops

- Fluvial Landscape Reconstruction from the Sedimentary Record, Penn State & SEPM, 2023
- Sequence Stratigraphy for Graduate Students, GSA Short Course, 2019
- Reservoir Characterization Short Course, Exxon Mobile, 2019

Courses

- Soil Physical Chemistry (UGA), Biological Oceanographic Processes (UGA), Plate Tectonics (UGA), Seminar in Quaternary Paleoenvironments (UGA), Sequence Stratigraphy (UGA), Data Analysis in the Geosciences (UGA), Geographic Information Science (UGA), Pedology (UGA), Clay Mineralogy (UGA), Geomorphology Seminar (UGA), Marine Micropaleontology (UGA), Sedimentology and Stratigraphy (WSU), Advanced Hydrogeology (WSU), Advanced Geomorphology (WSU), Advanced GIS (WSU), Structural Geology (WSU), Paleontology and Paleocology (WSU), Geochemistry (WSU), Optical Mineralogy and Petrology (WSU), Geology of North America (WSU).

Relevant Certificates

Graduate Teaching Certificate (UGA) – In progress

Certificate in Diversity and Inclusion (UGA) – In progress

Professionalism Certificate (UGA) – In progress

Pedagogical Development

Graduate Teaching Cohort, Center for Teaching and Learning (UGA), 2023-Present

- Cohort-based program with the intent to build an interdisciplinary teaching community and foster opportunities to deepen knowledge about effective university teaching. Topics covered include metacognition and motivation, universal design for learning, DEI in teaching, and course design.

Graduate Teaching Certificate, Center for Teaching and Learning (UGA), 2022-present

- A non-academic certificate program designed to support the preparation of UGA graduate students to engage effectively in instruction and help prepare them for their future careers in academia.

Pedagogy of Writing in the Disciplines course, Center for Teaching and Learning (UGA), 2023

- Promotes writing instruction by educating teaching assistants about pedagogical approaches to writing in the disciplines. Facilitates how to integrate meaningful writing activities and instruction into courses to support faculty in their efforts to help students develop their writing skills.

Designing Courses for Significant Learning course, Center for Teaching and Learning (UGA), 2023

- An interdisciplinary course that delivers graduate students a strong foundation in course design based on pedagogical theory. Graduate students design a course in its entirety, beginning with their goals for their students and working backward through assessment to teaching and learning activities.
- Course designed: Pedology for the Geosciences

Preparing to Pivot to Online Instruction short course, Center for Teaching and Learning (UGA), 2020

- A short course designed to provide instructors with strategies for adapting instruction for various forms of social distancing, including face-to-face, online, or a combination of both.

Seminar on College Teaching course, Center for Teaching and Learning (UGA), 2019

- A teaching-support seminar designed to familiarize graduate teaching assistants with the principles of higher education pedagogy as well as with the resources and support services available to them. Emphasis on different teaching approaches and techniques that are effective and appropriate for teaching assignments.

Professional Associations

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| Society of Sedimentary Geology | 2022-Present |
| Paleontological Society | 2020-Present |
| Society of Vertebrate Paleontology | 2020-Present |
| American Association of Petroleum Geologists | 2020-Present |
| Geological Society of America | 2018-Present |