The University of Texas at San Antonio

UTSA Sciences

Department of Geological Sciences

(Dept of Earth and Planetary Sciences, effective 8/23/2021)

2020-2021 Newsletter

Message from the Department Chair

Welcome to the 2nd issue of the Geological Sciences Department newsletter. First, I would like to congratulate our students, faculty, and staff for continuous success in handling the difficult situation of the COVID-19 outbreak. Even with the 10% budget cut this year which resulted in loss of a few faculty and staff, and the retirement of Dr. Walt Gray, we still saw a slight increase in majors (BS, MS, and PhD students) as compared to the past year. This year we graduated approximately 40 geoscientists/environmental geoscientists, a wonderful reminder that despite unforeseen challenges, our students are persevering towards their goals and achieving their dreams. We should thank in part to the new online teaching and learning technologies, such as Zoom, Panopto, BB Collaborate Ultra, Teams, and Padlet, to make our courses more accessible and engaging for today's diverse learners.

"Who are we and where are we headed as a department?" These are questions that I and fellow faculty have thought and discussed a lot in the past few years. Now I am glad we have a bold answer! Many thanks to Dean Silva for his leadership and vision that allowed our department to be renamed as the **Department of Earth and Planetary Sciences** effective 8/23/2021. Similarly, our Geology (BS, BA, MS) degrees are also renamed as **Geosciences** (BS, BA, MS) degrees with new focus areas: Environmental Geoscience, Earth System and Climate, and Water Science. We are also authorized to develop a **new PhD degree program** in Earth and Planetary Sciences in the next few years. This is really an exciting time for our department because these changes will no doubt re-energize, transform, and stimulate the growth of our department during the next 5 to 10 years.

In this newsletter, I invite you to read about the various successes and achievements that our faculty and students have recently accomplished. One of these that deserves a big highline is the first ever Earth Symposium organized by Dr. Alex Godet, with collaboration of our department and the Environmental Science and Ecology department (soon to be the Integrative Biology department).

– Hongjie Xie, PhD and Professor
Chair, Department of Geological Sciences

Faculty News

- **New Faculty Join the Department**

Sandy Cannon M.S., joins us from Houston, Texas, where she worked for Marathon Oil as a petroleum geologist since 2010. She received her B.S. and M.S. Degrees in Geological Sciences from the University of Texas at El Paso. Her thesis work focused on the Hueco Bolson aquifer which supplies most of the drinking water for the El Paso region. This involved well log analysis, grainsize analysis of well cuttings, and conducting a gravity survey over a faulted region of the aquifer to better constrain how basin faults inhibit mixing of fresh and brackish water. She interned with Marathon Oil in 2010 and was hired on as a fulltime petroleum geologist in 2011. Sandy began her career as an Operations Geologist in the Eagle Ford asset team where she steered horizontal wells, established, and then formalized the team's workflow processes which were later adopted by other asset teams. She then took on a role as an Exploration Geologist in the Williston Basin and Gulf of Mexico. Here she led the basin analysis and well planning of two unconventional wells and one deep water offshore well. Following her stint in exploration she returned to the Eagle Ford asset team as a Development Geologist for the asset. Her geologic expertise and experience in the Eagle Ford led to a role in the long-term planning and workflow efficiencies for the asset team. Sandy looks forward to translating the skills she gained in the petroleum industry into her new career as a lecturer in this department.

Dr. Harshad Vijay Kulkarni joins us as a Lecturer, who has two years of industrial research and development experience, and three years of postdoctoral experience in research and teaching. His research focuses on, i) geogenic and anthropogenic contaminants, mobilization processes and remediation, ii) advanced water purification, desalination, and water reuse, and iii) water-sediment-microbes interactions modeling in natural, engineered, and planetary analog systems. Dr. Kulkarni's teaching interests include physical geology, aqueous geochemistry, geochemistry, geomicrobiology and biogeochemical modeling.

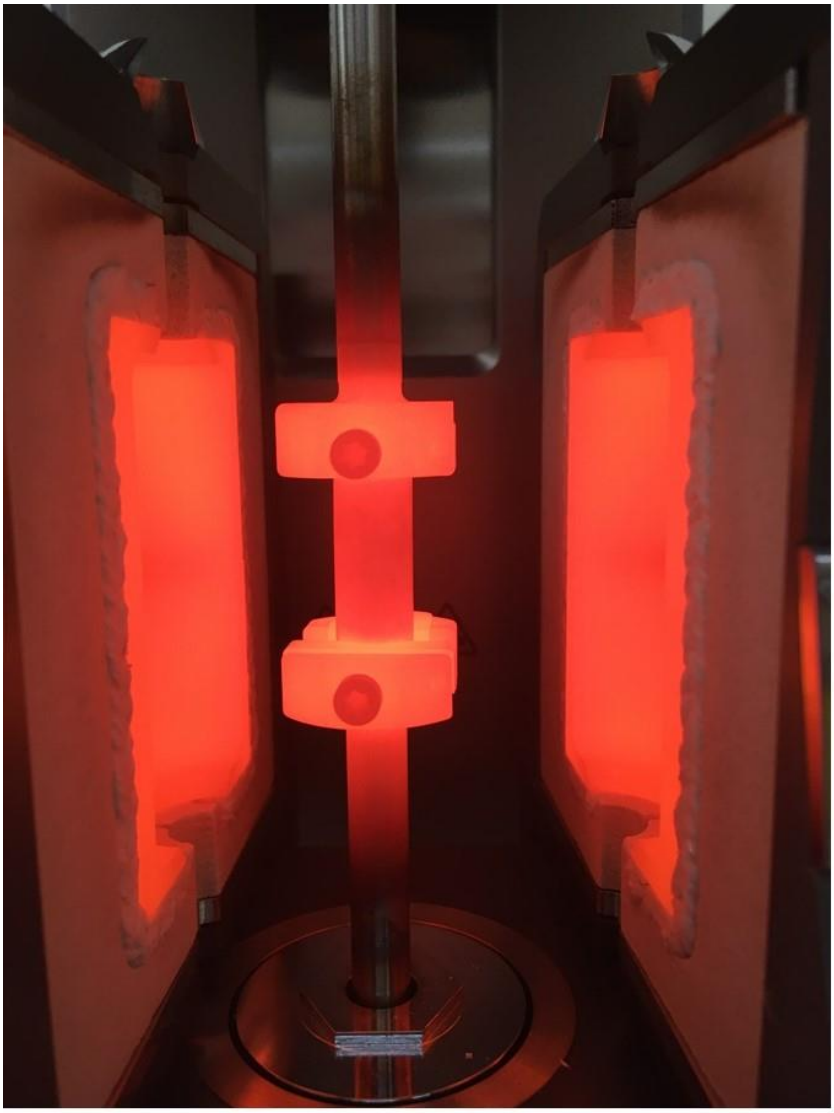
- **Dr. Alexis Godet Named Lutcher Brown Endowed Professorship**

- **Professor Janet Vote Earned Fellow of Associate of College and University Educators (ACUE) in effective online teaching**

- **Faculty Promotion/Transition**

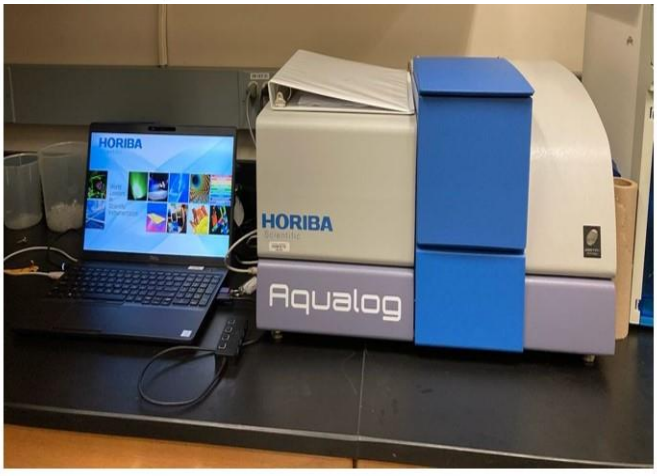
  - Dr. John (Matt) Cannon to assistant professor of instruction (from lecturer I)
  - Dr. Newfel Mazari to assistant professor of practice (from lecturer I)
  - Dr. Alberto Mestas to associate professor of instruction (from associate professor of practice)
  - Mrs. Janet Vote to senior lecturer (from lecturer II)
  - Dr. Blake Weissling to assistant professor of instruction (from assistant professor of practice)

- **New Instruments Strengthen Department's Education/Research Capacity**



- Dr. Alan Whittington's **Heat And Mass Transfer & Experimental Rheology** (HAMsTER) lab located at the Multidisciplinary Studies Building. Facilities include furnaces, rheometers, calorimeters, a thermal infrared camera and other equipment needed to study volcanic processes throughout the solar system – current funding from NSF and NASA supports research on volcanoes on Hawaii, Mars, and Europa!
- Left is an example of actual size photo of **torsion rheometer** in the lab. The cylindrical sample visible between the clamps is about 25mm / 1 inch long, and the furnace is at about 900˚C / 1650˚F. This sample is from the quarry at Knippa, TX.

Dionex Integrion / Aquion Ion Chromatograph



Horiba Aqualog Benchtop Fluorometer

- Saugata Datta's **Chemical Hydrology and Mass Spectrometry Lab** includes advanced chemical and isotopic measurement equipment, with research focusing on issues of water resources, water availability, and understanding the cycling of different metals and organic compounds in our groundwaters, surface waters, soils, and sediments, as well as how land use pattern changes affect the distribution of such metals and pollutants in our environments. Our research projects have links to health impact assessments, targeting both human and ecosystem health

New Grants

Message…
Faculty News
New Grants
Student…
Photos…
Follow Us…
Publications

- Datta, Saugata (PI) – "Per- and Polyfluoroalkane Substances (PFAS) with Calcium Oxide", *Noblis Inc.*, $45,000 (2021 -2022)
- Datta, Saugata (PI) – "The Effect of Fires on Cave Health in Lava Beds National Monument: A One Health Team Approach", *National Park Service*, $49,500 (2021–2022)
- Gao, Yongli (PI) – "Assessment of surface water and groundwater interactions along Cibolo Creek"; *Edwards Aquifer Authority*, $31,000 (2021-2021)
- Godet, Alex (PI) – "Carbonate sedimentology and diagenesis to determine the climate and impact on shallow-marine ecosystems". *UTSA Lutcher Brown endowed professorship fund*, $30,000 (2020-2021)
- Whittington, Alan (PI): "Induction Furnace-nozzle for Forming and Placing Lunar Regolith Bricks for Landing Pad Construction". *NASA STTR 21-1-T7.04-1428 KSC*, $38,837 (2021-2022). co-PI's: Sara Ahmed, Ovidio Giberga, Arturo Montoya.
- Xie, Hongjie (Co-PI) – "Changing environment in the glacial watershed of the Cordillera Blanca, Peru under the warming climate: Understanding the shifting local dynamics of water availability, agriculture, and energy production." *UTSA Transdisciplinary Teams (T2) Program*, $20,000 (2021-2022), with Rebecca Bria (PI) and Kristen Brown (Co-PI).
- Xie, Hongjie (PI) and Alberto Mestas (Co-PI) – "Supplement fund for research experience for undergraduate student (REU) to the existing NSF project titled Collaborative Research: Developing an On-Demand Service Module for Mining Geophysical Properties of Sea Ice from High Spatial Resolution;" *NSF*, $24,000 (2020-2021)

Back to Top

Student News

[Message…](#)
[Faculty News](#)
[New Grants](#)
[Student…](#)
[Photos…](#)
[Follow Us…](#)
[Publications](#)

- **UTSA's first Earth Symposium:**

UTSA Earth Symposium

September 4, 2020 | 8:00 am - 7:00 pm

Join the Department of Environmental Science and Ecology and the Department of Geological Sciences for the first UTSA Earth Symposium consisting of oral and poster presentations organized in a virtual environment.

Four sessions are lined up:

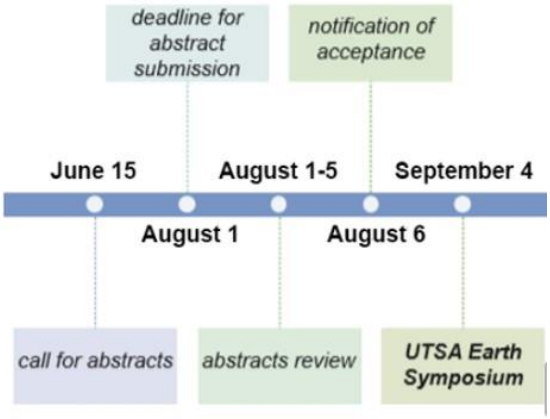
Session 1: Ecology and Biodiversity Conservation
We invite contributions that consider the interactions between living organisms and their environment, the effects of global change on populations, communities, and ecosystems, and the conservation of biodiversity.

Session 2: Challenges and Opportunities in Water Resources and Management
We invite contributions that look at any issue related to water resource science and management, including surface and groundwater hydrology and water quality, water and its role in ecosystem and public health, water availability, watershed and river processes, aquatic and riparian habitat formation, and conservation and management of aquatic and riparian biotic communities.

Session 3: The Changing Face of the Earth in the Context of Climate Change
We invite contributions at how interactions between the lithosphere, atmosphere, hydrosphere, and cryosphere can be modified by ongoing climate change, as well as lessons that can be learnt from the Earth's history.

Session 4: Planetary Science: Extraterrestrial Environments and Terrestrial Analogs
We invite contributions related to planetary science, including studies of surface and interior processes and environments, and their terrestrial analogs. Examples include, but are not limited to, astrobiology and planetary caves; human exploration and habitation; volcanism, lava flows and lava tubes; the cryosphere and cryovolcanism; and planetary oceans and hydrospheres, past and present.

Important Dates



Awards

Oral Presentations

- **1st place:** Miguel Bernardo, "The Development of Porosity in the Upper Cretaceous Austin Chalk Group of Texas"
- **2nd place:** Aaron Morrison, "Cryovolcanism: Evolution and Flow Dynamics of Cold Lava Flows"
- **3rd place:** Rebecca Nunu, "Using Geochemical Analyses to Discern Source Areas of a Multi-outlet Spring System in West Texas"

Poster Presentations

- **1st place:** Rodolfo Fernandez, "Satellite Salinity Imaging Depicts Deceleration in Gulf Stream Current during Hurricane Dorian, 2019"
- **2nd place:** Megan Schill, "Southern Appalachian Mountain Wildfires Increase Soil Microbial Nutrient Scavenging with Burn Severity"
- **3rd place:** Christopher Ray, "Cave Air CO_2 and Hydrochemical Monitoring of Helictite Cave, VA"

- **Awards and Recognitions:**

  - ESE PhD students: YoungHyun and Hazem Mahmoud (and CS PhD student Jurdana Masuma Iqrah) won the 3rd place (shared the $45k funding) in the 2021 National Security Innovation Network (NSIN)'s Polar VORTEC Hackathon competition (a DoD funded program).
  - Iyare Oseghae (Geoinformatics MS) and Hazem Mahmoud (ESE PhD) participated the 2021 NASA summer internship program (respectively with JPL and Ames) via the CAMEE grant.
  - Ashley Aguilar (Geology MS) and Karen Mendiondo (ESE PhD) Featured in the NASA MIRO Program Web Article.
  - Justin Sharpe (Geology BS) received the 2021 best poster presentation at the joint meeting of South-Central and North-Central sessions of GSA.
  - Ashley Aguilar (Geology MS) Awarded 2021 GSA Graduate Student Research Grant.
  - Our students YoungHyun Koo (ESE PhD), Mansi Joshi (ESE PhD), and Elizabeth Hebel (NSF REU) are among the six winners in the first CAMEE research showcase competition.
  - Geology undergraduates Crystal Moreland, Alexis Sansing, and Deashia Williams received STGS Field Camp Scholarship.
  - Justin Sharpe (Geology BS) received the 2021 STGS UTSA Chair Award.
  - Rebecca Nunu (Geology MS) received 2020 UTSA's Graduate School's Outstanding Thesis Award.
  - YoungHyun Koo (ESE PhD) took an active part in the Early Career Scientists associations group review to the IPCC Sixth Assessment Report Climate Change 2021: Impacts, Adaptation and Vulnerability.

At the award / scholarship dinner of the South Texas Geological Society (STGS), May 2021. – from right to left: Crystal Moreland, Alexis Sansing, Deashia Williams, and Justin Sharpe.

  - Geology unds Yarima Cortinas, Ross Glore, Amy Hasegawa, and Noah Klitus placed in the fall 2020 President's list.
  - Geology unds Kayla Bishop, Jaydne Blomfield, Eliana Carmona, Ainsley Cindric, Isaias Medina, Austin Patridge, Justin Sharpe, and Deashia Williams placed in the fall 2020 Dean's list.
  - Geology unds Wesley Arrizon, Salem Ashley, Tiffany Barker-Edwards, Jose Cardenas, David Garcia, Richard Gonzalez, Michael Molini, Crystal Moreland, Daniela Presas, Alexis Sansing, Alexandra Snow, and Mallory Wilkins placed in the fall 2020 Honor Roll.
  - Maria Solis (Geology BS) pictured in the field camp article in the December 2020 GSA Today.
  - Ashley Aguilar (Geology MS) awarded 2020 Dwight David Eisenhower Transportation Fellowship Program grant.

- Quite a few MS, PhD students and their teams earned first, second, or third places in the UTSA Transdisciplinary Grand Challenge: Katrina Poling (Geology MS), Robert Salinas (Geology MS), Jullian Williams (ESE PhD, Younghyun Koo (ESE PhD), and Iyare Oseghae (Geoinformatics MS).
- Recipients of various Departmental Scholarships →

Scholarships	Recipients
Dr. James O. Jones Endowed Scholarship	Crystal Moreland, Kiana Garcia
Jerry Wayne Earnest Memorial Scholarship	Kiana Garcia
Amy Shelton & V.H. McNutt Presidential Endowed Scholarship	Faruk Agoro, Angie De La Cruz, Justice Lira, Karen Mendiondo, Karsen Moeller, Sergio Teran, Thomas Nordstrand, Samantha Hensley, Iyare Osegha, Faith Goddard, Lauren Schwartz, Tiffany Barker-Edwards, Todd Cobbs, Patricia White
San Antonio Geophysical Society Scholarship	Faith Goddard
Southwest Gem & Mineral Endowed Scholarship	Crystal Moreland, Kiana Garcia
Wilford L. Stapp Scholarship	Angie De La Cruz
Mrs. Pamathamal Endowed Scholarship	Kiana Garcia, Tiffany Barker-Edwards

- **Undergraduate degree confirmed:**

  - **Fall 2020:** Richard Gonzalez, Stephen Hernandez, Isaias Medina, Maria Solis
  - **Spring 2021**: Ramiro Aguinaga, Brett Brown, Anthony Zavala Fierro, Ty Pirkle, Alexandra Savage,
  - **Summer 2021:** Angie De La Cruz, Chibuikem Esomeju, Corrinne Gauntt, Crystal Moreland, Alexis Sansing, Justin Sharpe, Ismael Vazquez, Deashia Williams

- **Undergraduate GIS Certificate confirmed:**

  - Julio Toala (2021, majored in Geography and Environmental Sustainability)

- **MS degree confirmed:**

  - Amber Poujardieu (2021), Geology, *"Geochemistry and petrology of dikes and enclaves of the Mesoproterozoic Enchanted Rock Batholith, Llano Uplift, Central Texas"*. Supervising professors: A. Whittington (chair), W. Gray (co-chair), and A. Godet
  - Matthew Norwood (2021), Geology, *"Geochemistry and Petrology of the Mesoproterozoic Katemcy Pluton, Llano Uplift, Central Texas".* Supervising professors: A. Whittington (chair), W. Gray (co-chair), and A. Godet.
  - Sergio Teran (2021), Geology, *"A Probabilistic Analysis of Lahar Bulking and Debulking in Channelized Proximal Volcanic Settings".* Supervising professors: A. Whittington (chair), B. Weissling (co-chair), J. Haschenburger, and K. Sieron.
  - Jordan Arnold (2021), Geology, *"The Significance of Tributary Sediment Input in Controlling Main Stem River Morphology"*. Supervising professors: J. Haschenburger (chair), A. Godet, and H. Xie.
  - Colby McCay (2021), Geology, *"Controlling mechanisms on the preservation of organic matter in the Late Cretaceous Eagle Ford Group, South Texas".* Supervising professors: A. Godet (Chair), L. Lambert, and E.J. Valek.
  - Tiffany Faller (2021), Geology, *"Conodont Biostratigraphy of the Middle Permian Reef Trail Member (Uppermost Bell Canyon Formation), SC1 Reference Section, Guadalupe Mountains National Park, West Texas"*. Supervising professors: L. Lambert (chair), A. Godet, and J. Vote.
  - Christian Sustayta (2021), Geoinformatics, *"Comparison of geostrophic current estimates from a buoyancy glider and a surface current analysis from satellites in the Gulf of Mexico".* Supervising professors: S. Datta (chair), A. Mestas (co-chair), and K. Bhaganagar.
  - John James (2021), Geoinformatics, non-thesis, examining committee: H. Xie (chair), A. Mestas, B. Weissling, and N. Bagheri.

- John Linfoot (2021), Geoinformatics, non-thesis, examining committee: H. Xie (chair), A. Mestas, Y. Gao.
- Miguel A Bernardo (2020), Geology, *"The development of porosity in the Upper Cretaceous Austin Chalk Group of Texas"*. Supervising professors: A. Godet (Chair), L, Lambert, W. Gray.
- Karen C. Mendiondo (2020), Geology, *"Acoustic doppler current profiler observations of ocean current velocities from a SeaExplorer glider".* Supervising professors: H. Xie (chair), A. Mestas (co-chair), J. Hutchinson.
- Rebecca Nunu (2020), Geology, *"Using geochemical and statistical analyses to identity local and regional flow to a multi-outlet spring system: San Solomon Springs, Texas, USA".* Supervising professors: Y. Gao (Chair), S. Data, A. Mestas, and R. Green.
- Sophia May (2020), Geoinformatics, non-thesis, examining committee: H. Xie (chair), Y. Gao, A. Godet
- Stuart Lawyer (2020), Geoinformatics, non-thesis, examining committee: H. Xie (chair), A. Mestas, G. Griffin

- **Graduate GIS certificate confirmed:**

  - Jordan Arnold (2021),
  - Patrick Bryan (2021),
  - Tomas Fernandez (2021),
  - Karen Mendiondo (2021),
  - Kevin Silcos (2021),
  - John James (2020), and
  - Christian Shuemaker (2020)

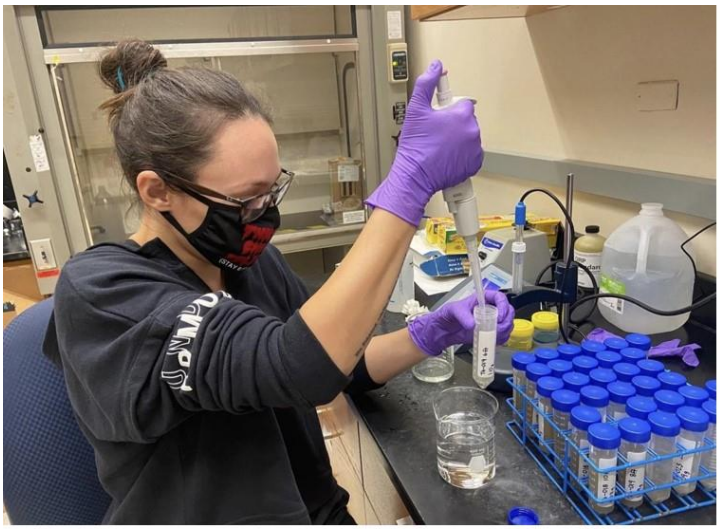
Back to Top

Photos and Field Trips

Message…
Faculty News
New Grants
Student…
Photos…
Follow Us…
Publications

Dr. Alan Wittington's group studies volcanic rocks in New Mexico and Texas, summer 2021:

- Lauren Schwartz (MS in progress) and Brenna Halverson (PhD in progress), (upper left) on Jurassic Zuni Sandstone overlooking Holocene basaltic lava flows at El Malpais National Monument, New Mexico; (upper right) using a Forward-Looking Infra Red (FLIR) camera to monitor diurnal temperature changes in Holocene basaltic lava flows in the Zuni Mountains, New Mexico.
- Postdoc Dr. Anis Parsapoor (left) enjoying spectacular columnar jointing at the Knippa Trap Rock Quarry in Knippa TX, about an hour west of San Antonio. These unusual silica-undersaturated lavas cooled quickly, just below the Cretaceous sea floor.




Dr. Saugata Datta's group studies water: (left) Ashley Aguilar, a first-year graduate student studying conducts research on how temperature can influence leaching of toxic minerals, such as arsenic and fluoride, into the groundwater of aquifer influenced regions; (right) Masters student Katrina Poling is in action on an anerobic chamber in the Chemical Hydrology and Mass Spectrometry Lab based microbial experiment in generating pathways to remove sulphate as common scalants generated within desalination process of H2Oaks brackish groundwaters.




Dr. Hongjie Xie and Geoinformatics MS student Iyare Oseghae are testing the drone-borne hyper-spectal imaging system (upper left, right, bottom left) and the drone-based thermal-infrared and 3D image system (bottom right) at the open space of the UTSA east campus, April 2021.

Dr. Yongli Gao and Ms. Amy Ossola-Phillips (Manager of Special Projects in the UTSA Graduate School) led a field trip to Landa Park, New Braunfels on July 27th, 2021. Dr. Gao showed students in-situ water quality measurements and water sampling at Comal Springs, the largest springs system in Texas. David Montoya, Emily Seddighzadeh, Donjae Galbert, Adelite Hategeka, Brandon Hobza participated in the field trip through the South Texas Interdisciplinary Research for Undergraduates Program (STIRUP) program. Desiree Arbizu from Northeast Lakeview College, a summer intern sponsored by CAMEE, also joined the field trip.

Message…
Faculty News
New Grants
Student…
Photos…
Follow Us…
Publications

Follow Us on Social Media

- AEG Student Chapter at UTSA
- UTSA Department of Geological Sciences

- UTSA Geology Alumni

- UTSA Department of Geological Sciences

Epsilon Omega Chapter of Sigma Gamma Epsilon

Support our Students

If you would like to make a donation to support our Department of Geological Sciences students, faculty and research, please follow this link to the UTSA giving site.

Back to Top

Publications

Message…
Faculty News
New Grants
Student…
Photos…
Follow Us…
Publications

(Faculty, students, and alumni in **bold**; [1]B.S. student; [2]M.S. student; [3]Ph.D. student; [4]Postdoctoral fellow/Visiting scholar, [5]retired from or affiliated with the Dept. of Geological Sciences)

Andrews, G.A., Kenderes, S., **Whittington, A**., Isom, S., Brown, S.R., Pettus, H., Cole, B., and Gokey, K., 2021. The Fold Illusion: the origins and implications of ogives on silicic lavas. *Earth and Planetary Science Letters*, 553, 116643, doi: 10.1016/j.epsl.2020.116643

Akintomide, Omolola, Reda M Amer, Jeffrey S Hanor, **Saugata Datta**, Karen H Johannesson, 2021. Pleistocene sands of the Mississippi River Alluvial Aquifer produce the highest groundwater arsenic concentrations in southern Louisiana, USA. *Journal of Hydrology*, Volume 595, 2021, 125995, ISSN 0022-1694. doi:10.1016/j.jhydrol.2021.125995

Barrick, J. E., A. S. Alekseev, S. Blanco-Ferrera, N. V. Goreva, K. Hu, **L. L. Lambert,** T. I. Nemyrovska, Y. Qi, S. M. Ritter, and J. Sanz-Lopez., 2021. Carboniferous Conodont Biostratigraphy. *In:* The Carboniferous Timescale. S. G. Lucas, J. W. Schneider, X. Wang, and S. Nikolaeva (eds.). *Geological Society of London*, Special Publication 512. 74pp. doi.org/10.1144/SP512-2020-38

Bechtold, Rachel, Narinder K. Sharma, Michael Vega, **Saugata Datta**, Joseph Arruda, and Anuradha Ghosh., 2020. Isolation and Characterization of Soil Bacteria from an Abandoned Coal Mine in Southeast Kansas. *Transactions of the Kansas Academy of Science* 123(3-4), 371-385, (26 October 2020). doi:10.1660/062.123.0305

Bernardo, M. [2] and **Godet, A.**, 2021. The development of porosity in the upper Cretaceous Austin Chalk Group of Texas. *STGS Bulletin* LXI (8): 21-49

Cigna, F., **Xie, H.**, and Chokmani, K. (Eds.), 2021. Imaging Floods and Glacier Geohazards with Remote Sensing. *MDPI Book*. doi:10.3390/books978-3-0365-0067-6

Cigna, F., **Xie, H**., 2020. Imaging Floods and Glacier Geohazards with Remote Sensing. *Remote Sens.* 12(23), 3874. doi:10.3390/rs12233874

Davis, C.I., Sheppard, C., Lehrmann, A., Adams, T., **Godet, A.**, **Price, D.,**[3] **Sharpe, J**., [1] Suarez, M., Altiner, D.and Lehrmann, D.J, 2021. Sedimentology and geochemistry of a Lower Cretaceous dinosaur track site at the Mayan Ranch, Bandera, Texas: implications for environments and preservation of a sauropod manus dominant trackway. *STGS Bulletin* LXI (*6*): 14-32.

Gu, X., **Yang, G.[4]**, He, X., Zhao, L., Li, X., Li, P., Liu, B., **Gao, Y.**, Xue, L., & Long, A., 2020. Hydrological process simulation in Manas River Basin using CMADS, Open Geosciences 2020; 12(1): 946–957, https://doi.org/10.1515/geo-2020-0127

Kenderes, S., and **Whittington, A**., 2021. Faster relaxation geospeedometry using a Monte Carlo approach for determining the cooling rates of volcanic glasses. *Chemical Geology*, 581, 120385, doi: 10.1016/j.chemgeo.2021.120385

Knappett, P.S.K., Li, Y., Loza, I., Hernandez, H., Aviles, M., Haaf, D., Majumder, S.,Huang, Y., Lynch, B., Pina, V., Wang, J., Winkel, L., Mahlknecht, J., **Datta, S.**, Thurston, W., Terrell, D., Nordstrom, D.K., 2020. Rising Arsenic Concentrations from Dewatering a Geothermally Influenced Aquifer in Central Mexico. *Water Research*, Volume 185, 2020, Article 116265. doi:10.1016/j.watres.2020.116257

Koo, Y. [3], Xie, H., Ackley, S.F., Mestas-Nuñez, A.M., Macdonald, G.J.[4], and Hyun, C.-U., 2021, Semi-automated tracking of iceberg B43 using Sentinel-1 SAR images via Google Earth Engine, *The Cryosphere Discuss*. doi:10.5194/tc-2021-131

Lin, F., Tan, L., Xue, G., Cheng, X., Zhang, H., Cheng, H., Edwards, R.L., Wang, T., Li, D., **Gao, Y.**, An, Z., 2021. Seasonality of precipitation recorded in a modern (1907--2008) annually laminated stalagmite from central China. Palaeogeography, Palaeoclimatology, Palaeoecology, 110489. https://doi.org/10.1016/j.palaeo.2021.110489

Li, W., Zhao, L., **Yang, G.[4]**, Yan, K., He, X., **Gao, Y**., Xue, L., Li, F., Wu, Y., 2021. Water source and transmission in Haloxylon ammodendron in the desert margin of the Manas River Basin, China. Israel Journal of Ecology and Evolution, 1-12. http://dx.doi.org/10.1163/22244662-bja10022

MacAyeal, D., Sergienko, O., Banwell, A., **Macdonald, G.**[4], Willis, I., Stevens, L., 2021. Treatment of ice-shelf evolution combining flow and flexure. *Journal of Glaciology*, 1-18. doi:10.1017/jog.2021.39

Pedrazas, M., Cardenas, M. B., Hosain, A.Demir, C., Ahmed, K., Akhter, S., Wang, L., **Datta, S.,** Knappett, P.S.K., 2021. Application of electrical resistivity to map the stratigraphy and salinity of fluvio-deltaic aquifers: case studies from Bangladesh reveal promises and pitfalls. *Hydrology Journal*. (accepted)

Ren, F., **Yang, G.**[4], Li, W., He, X., **Gao, Y.**, **Tian, L.**[3]**,** Li, F., Wang, Z., Liu, S., 2021. Yield-compatible salinity level for growing cotton (Gossypium hirsutum L.) under mulched drip irrigation using saline water. Agricultural Water Management, 250, 106859. http://dx.doi.org/10.1016/j.agwat.2021.106859

Roy, D.J.W., Merriman, J.D., **Whittington, A.**, and Hofmeister, A.M., 2021. Thermal properties of carbonatite and anorthosite from the Superior Province, Ontario, and implications for non-magmatic thermal effects of intrusions. *International Journal of Earth Sciences (Geol. Rundsch.)*, 110: 1593-1609. doi: 10.1007/s00531-021-02032-w

Sehlke, A., Hofmeister, A.M., and **Whittington, A**., 2020. Thermal Properties of Glassy and Molten Planetary Candidate Lavas. *Planetary and Space Science*, 193, 105089, doi: 10.1016/j.pss.2020.105089

Shen, S., D. Yuan, C. M. Henderson, Q. Wu, Y. Zhang, H. Zhang, L. Mu, J. Ramezani, X. Wang, **L. L. Lambert**, D. H. Erwin, J. M. Hearst, L. Xiang, B. Chen, J. Fan, Y. Wang, W. Wang, Y. Qi, J. Chen, W. Qie, and T. Wang., 2020. Progress, problems and prospects: An overview of the Guadalupian Series of South China and North America. *Earth Science Reviews 211*:26 pp., doi.org/10.1016/j.earscirev.2020.103412.

Sieron, K., **B. Weissling**, M. A. Morales-Martinez, and **S. Teran**[2], 2021. Reconstruction of the upper slope conditions of an extraordinary hydro-meteorological event along the Jamapa glacier drainage system, Citlaltepetl (Pico de Orizaba) volcano, Mexico. *Front. Earth Scie.*, doi.org/10.3389/feart.2021.668266.

Tian, L.[3]**, Gao, Y., Yang, G.**[4], Schwartz, B., Cai, B., **Ray, C.J.**[3]**, Li, Y.**[4], Wu, H., 2021. Isotopic tracers of sources of water for springs from the Edwards Aquifer, Central Cexas, USA. Hydrology Research, 52(3), 787-803, https://doi.org/10.2166/nh.2021.011

Tian, L.[3]**, Gao, Y., Yang, G.**[4], Schwartz, B., Cai, B., Lei, G., Shi, G., **Ray, C.J.**[3], **Sok, S.**[2]**, Martinez, E.**[2]**, Li, Y.**[4], Wu, H., 2021. The evolution of hydrochemical and isotopic signatures from precipitation, surface water to groundwater in a typical karst watershed, Central Texas, USA. Isotopes in Environmental and Health Studies, 1-24, https://doi.org/10.1080/10256016.2021.1948410

Tian, L.[3]**, Xie, H., Ackley, S.F., Mestas-Nuñez, A.M.**, 2020. Assessing Scale Dependence on Local Sea Level Retrievals from Laser Altimetry Data over Sea Ice. *Remote Sens.* 12(22), 3732. doi:10.3390/rs12223732

Tan, L., Liu, W., Wang, T., Cheng, P., Zang J., Wang X., Ma, L., Li, D., Lan, J., Edwards, R. L., Cheng, H., Xu, H., Ai, L., **Gao, Y.**, & Cai, Y., 2020. A multiple-proxy stalagmite record reveals historical deforestation in central Shandong, northern China. Science China Earth Sciences, http://engine.scichina.com/doi/10.1007/s11430-019-9649-1

Tompson, L., M. Smith, J. Thomson, S. Stammerjohn, **S. Ackley**, and B. Loose, 2020. Frazil ice growth and ice production during katabatic wind events in the Ross Sea, Antarctica. *The Cryosphere*, 14, 3329–3347. doi:10.5194/tc-14-3329-2020

Wang, Y., **Yang, G.**[4], Gu, X., He, X., **Gao, Y.**, **Tian, L.**[3], & Liao, N., 2021, Application of SWAT model with CMADS data for hydrological simulation in western China. Journal of Water and Climate Change, 12(4), 1154-1167 http://dx.doi.org/10.2166/wcc.2020.040

Yuan, D., S. Shen, C. M. Henderson, **L. L. Lambert,** J. M. Hearst, Y. Zhang, J. Chen, W. Qie, H. Zhang, X. Wang, Y. Qi, and Q. Wu., 2021. Reinvestigation of the Wordian-base GSSP section, West Texas, USA. *Newsletters on Stratigraphy*. 54(3):301-315. https://doi.org/10.1127/nos/2020/0613\

Zhao, L., Li, W., **Yang, G.**[4], Yan, K., He, X., Li, F., **Gao, Y.**, **Tian, L.**[3], 2021. Moisture, Temperature, and Salinity of a Typical Desert Plant (Haloxylon ammodendron) in an Arid Oasis of Northwest China. Sustainability, 13(4), 1908. http://dx.doi.org/10.3390/su13041908

Back to Top