

A Message from the Department Chair



Department Chair
Dr. Ioannis Y. Georgiou

Hello Students, Alumni, and Friends of EES: Here we are with another eventful and exciting year under our belt. I have some fantastic news to share. Enrollment is up campus wide in both undergraduate and graduate programs, and our department is no exception. Our undergraduate numbers went up and so did our inquiries and demand from graduate school. After sitting out one year, Brad Robinson led the Imperial Barrel Award (IBA) team (comprised of Jarrett, Jared, Taylor, Bobby and Brittany – see page 15) to Houston, where they made the finalists and eventually placed second in the southeast section. Our students did an excellent job and we are all very proud of their academic and professional conduct during the competition. This past year was the first time in a long time that our department received a new faculty line; I am very excited to introduce Dr. Robert Mahon, who completed a doctoral degree at the Univer-

sity of Wyoming, and post-doctoral research with John Shaw at the University of Arkansas as a National Center for Earth Dynamics (NCED2) scholar. Robert's presence, his research background and the courses he will teach will help enhance the experience for graduate and undergraduate students in our department and I look forward to seeing students benefit. We also welcome Robin Jackson, the new coordinator for business and students affairs who helps us to run the department and Institute smoothly on a daily basis. Last year we said farewell to Dr. Mostafa Sarwar from official department duties, and this past summer, I am happy to announce that Dr. Sarwar is the Interim Provost at Delgado Community College. We congratulate Mostafa on his new position and hope that he can help better the relationship between Delgado and UNO. We are also very grateful for our volunteer faculty. I would like to first thank Brad Robinson, who is teaching courses in Petroleum Geology, Basin Geology and other much needed courses that directly serve our Geoscience majors and graduate students with interest in Petroleum Geoscience. I also want to acknowledge Brad's effort in leading the IBA team to another success, along with other mentors which includes the usual suspect, Toby Roesler, as well as Ben Kirkland, Josiah Hulse, Trey Kramer, and Chris McLindon for their input and mentoring to the IBA team; we are grateful and hope that this relationship continues. I would like to thank

the many people who continue to donate to support our students (see names on back page of newsletter). Your support of our students through mentoring, internships, and donations are significant. It is truly the community of past and present students and staff that ensures a bright future for EES. This past year we have provided more than 30 students with scholarships, which helps offset costs in tuition and fees, supported student organizations with campus activities, and provided partial support for critical improvements in the department; these include better common areas for the students, renovation of our saw room, student computer lab upgrades to name a few. Thank you for caring about EES. Our student organizations (SEES, SGE and AAPG) have done an extraordinary work with various events throughout the year. Their spirit in organizing and participating at events continues to bring the student community closer, and help provide unique experiences for our students. In closing, I am pleased to announce that the SEES annual fundraising event, the Annual Mineral Auction will take place on November 9th at 7:00 pm at the Cove. Please come out to help support our student organizations, and as Skip always said, remember to "bid high, and bid often..."

Thank you and All the Best,
Ioannis Georgiou

Dr. Robert Mahon, Assistant Professor

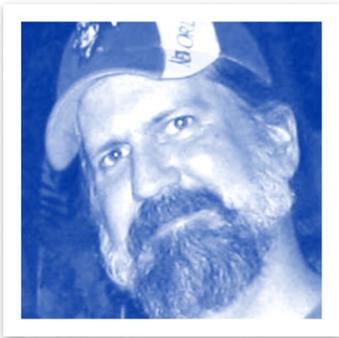


Greetings from the new guy!

As the newest addition to the EES faculty, most of you may not know who I am so I'll start with a little background: I am a sedimentologist and stratigrapher working primarily on sediment transport in modern and ancient rivers and deltas. I'm coming to UNO most recently from a postdoctoral position at the University of Arkansas, with my PhD, MS, and BS degrees from the University of Wyoming, Idaho State University, and University of Montana, respectively. At UNO I will be focused on building quantitative relations between physical processes such as flow and sediment transport dynamics and the record of these processes left behind as stratigraphic architectures. This work will involve sediment experiments in flumes and delta tanks, fieldwork on the many riverine and deltaic environments of Louisiana, as well as modeling work.

I am looking forward to building a state-of-the-art experimental sedimentology and stratigraphy lab here at UNO and to mentoring a new crop of undergraduate and graduate students!

Dr. Martin O'Connell, Associate Professor Director of the Nekton Research Laboratory



The scientists and graduate students who work in my lab, the **Nekton Research Laboratory (NRL)**, have been pursuing various interesting research projects over the last year. **Senior Biologist and Database Manager Meg Uzee O'Connell** of the **Pontchartrain Institute for Environmental Sciences (PIES)** and I have just submitted a final report for a large five-year research project funded by



the Bureau of Ocean Energy Management. This project involved collecting fishery-independent data from estuaries across three states (Louisiana, Mississippi, and Alabama). One of the results from this long-term research was that we detected a decline in blue crabs and some species of flatfishes over the last thirty years in the northern Gulf of Mexico. We are in the process of submitting the first manuscript associated with this research.



Assistant Professor-Research Dr. William Stein of PIES and I continue to work together on writing research grants and scientific manuscripts on various topics. For example, Dr. Stein is working on a manuscript describing differences in how juvenile Tarpon (*Megalops atlanticus*) use coastal nursery habitats in different regions of the Gulf of Mexico.

The NRL is collaborating with **Dr. D. Ryan Gray in the Department of Anthropology** and **Dr. Ryan Kennedy of Tulane University** on a project titled "*Reconstructing fisheries use and the health of commercially important fish populations in historic New Orleans, ca. 1717-1860*".

For this research, the NRL collected local fishes and the chemical composition of their bones will be compared with fishes from 300 years ago to test for possible changes in these fishes and fisheries over this long time period. EES undergraduate researchers **Danielle Mangipano, Josh Eaton, and Megan Burns** have assisted with this project, learning important laboratory skills involving bone preparation and stable isotope analyses.



Arnaud Kerisit

Arnaud Kerisit (M.Sc. student) successfully defended his thesis and will be graduating in December. **Meghan Gahm** (Ph.D. student) completed her field work and data collection for her dissertation research. She measured the effectiveness of various turtle excluder device (TEDs) and this involved working on commercial fishing boats with fishermen in Louisiana, Mississippi, and Miami, Florida. She will be taking her general exams this fall semester and plans on defending her dissertation in 2019.



Jeff Gearhart

Jeff Gearhart (Ph.D. student) continues to lead our TED research efforts. Part of his efforts involves coordinating the testing of different TEDs and TED methods in cooperation with local Vietnamese-American and Cambodian-American fishermen.



Meghan Gahm

Graduate student **Damon Morse** (M.Sc. student) is close to finishing his thesis research on the invasive Island Apple Snail (*Pomacea maculata*). With the help of EES undergraduate researcher **Tandie Gautreau**, final collections of snails and fishes from impacted habitats were completed in August. Damon also plans on defending his thesis research sometime in 2019.



Damon Morse Danielle Mangipano, Josh Eaton, Megan Burns, and Tandie Gautreau

~ Martin O'Connell

Dr. Ioannis Y. Georgiou, Associate Professor, and Director of the Pontchartrain Institute for Environmental Sciences (PIES)



Greetings to all students, faculty, alumni and friends - I hope everyone reading this update is doing well. Our group and collaborators have had yet another busy year. Our most interesting expedition was nearly a year ago, when our group was involved in field studies to investigate storm-induced sediment deposition on wetlands along the Atlantic seaboard. Colleagues included **Dr. Chris Hein** from the Virginia Institute of Marine Sciences (VIMS), **Drs. Duncan FitzGerald and Zoe Hughes** from Boston University and our UNO-PIES researchers **Michael Brown and Tara Yocum**. Our group spent 10 days at field sites at Amelia Island (FL), Sapelo Island (GA), Hilton Head Island and Cape Romain (SC), collecting marsh sediment samples, push cores, and accretion cores to determine sedimentation thickness resulting from Hurricane Irma. While NSF RAPID funded our fieldwork, we are also preparing a proposal to obtain support for the analysis and additional sampling. For more on this story please visit the link. http://www.uno.edu/campus-news/2017/UNO_Science_How_Do_Hurricanes_Impact_Marshes.aspx

Recently completed, our **BOEM project**, with resource economists **Rex Caffey (LSU)** and **Daniel Petrolia (Mississippi State)**, we studied the economic and geomorphic impacts of utilizing outer continental shelf (OCS) sand versus nearshore sand sources for coastal restoration projects in Louisiana. Also completed, the **Mississippi River Delta Front project** (with **Profs Sam J. Bentley and Kevin Xu** from LSU), where we are evaluating geophysical processes driving delta front instabilities. In addition, at the direction of BOEM we submitted a 5-year proposal to conduct a more detailed analysis, bringing together seventeen investigators from nine Universities, federal partners and the private sector.

Graduate students are progressing nicely with their work. First, let us congratulate our most recent graduates, **Joshua Flathers, Ben Beasley** and **Brittany Kime**. Ben utilized a long-term dataset to better understand the connection between the shoreface and barrier shorelines; Brittany, investigated the morphodynamic trajectory of barrier islands restored with outer-continental shelf (OCS- higher quality) sands, and compared them to barriers that were restored with nearshore (lower quality) sand, and finally, Joshua looked at the allogenic controls on stratigraphy in tide-dominated systems. Ben is now a coastal scientist with Applied Coastal Research and Engineering Inc., in their New Orleans's office, and both Joshua and Brittany recently started working at NAVOCEAVO at the Stennis Space Center in Mississippi. Doctoral candidates **Pricilla Souza** and **Kevin Hanegan** have completed at least one or two of their manuscripts and once near submission they will be in line to defend their dissertation. **Joshua Hansen** has completed his prospectus and will be defending this semester, and **Joshua Thomas** is not that far behind.

We welcome our newest group members. Last spring and over the summer, we have had new undergraduate researchers working in the lab. We welcome **Ernesto Hernandez, Tandie Gautreau** and more recently **Leah Tavis**; Ernesto is analyzing sediment samples from marshes in Plum Island (MA), and Leah is analyzing samples from Louisiana, along the Caminada headland. We also have two new graduate students, **Jessica Villers** who is a LSU graduate from LSU, and **Mohiuddin Sakib**, from Bangladesh, both of which are formulating their methods and working on their research proposals.



Brittany Kime, Ben Beasley, Joshua Hansen, Pricilla Souza, Kevin Hanegan, Jessica Villers, and Mohiuddin Sakib

Kevin C. Hanegan Doctoral Dissertation Year Fellowship Award

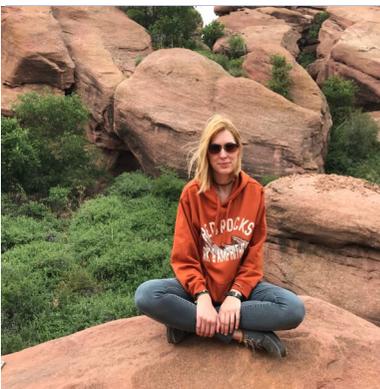
I am starting my 6th year working on a PhD in Dr. Georgiou's Coastal and Environmental Hydrodynamics Laboratory, and am able to continue this next year with funding from the graduate school in the form of a Doctoral Dissertation Year Fellowship. This was awarded during a 3MT competition held last spring where I had to present my research to a non-specialist audience in under 3 minutes. I see that they are organizing another round of 3MT competitions, and I definitely recommend participating. It is a great opportunity for additional funding, but the process of developing a presentation alone is really helpful for communicating the importance of your research to friends, family, and potential employers.

My research with Dr. Georgiou is progressing; I am finalizing a draft of my first paper on the hydrodynamic and morphologic response of tidal basins to sea level rise, and hope to quickly follow with some more applied work relevant to land-building from sediment diversions. Outside of school, I continue to work in industry as a coastal engineer, working on restoration projects along the Gulf. Some recent projects include modeling to support the development of the 2017 State Coastal Master Plan, design of the Increase Atchafalaya Flow freshwater diversion, an independent technical review of the Mid-Barataria Sediment Diversion design, and design of a living shoreline in Alabama. Otherwise, my 4-yr old lab, 3-yr old daughter, and 1-yr old son keep me busy.



State of the Coast Conference, New Orleans.

Kevin Hanegan, Tim Nelson, Brittany Kime, Jared Bullock, Julie Torres, Carrie Miller, Bobby Mollohan, Frances Crawford, Jarrett Levesh and Dr. Ioannis Y. Georgiou



Leah Tavis

I am a geology major in my Junior year, but this is my first semester at UNO and so far, I am loving it! I am originally from the Midwest, I like being outside; hiking, exploring, climbing, rock/fossil collecting. Living down here is very different, but I have enjoyed learning the different flora and fauna and all the geology that comes with living in a coastal region. When I get moments of free time I like discovering new things to listen to, thrifting, taking photos and hanging with my cat Frampton.



Research Associate, Tara Yocum, Testing a new instrument in Lake Pontchartrain (Pontchartrain Beach)

Spring 2018 FALSTERITE LIST



Wayne Alleyne
Brooke Carver
Cary Darbonne
Joshua Eaton
Carrie Miller
Matthew Tiffit

APPLY TO THE FALSTERITE LIST

Applications in GP1065
Email: moconnel@uno.edu

The **Falsterite List** recognizes EES students who have successfully completed 15 hours or more of coursework in a semester. Much like a dean's list, the Falsterite List will be publicly posted such that deserving students can be recognized by their peers.

The Girl Scouts ~ Believe in Girls Big Event

On September 29, 2018, over 1000 Girl Scouts from across Louisiana came together at UNO to attend their "Believe in Girls" big event.

The scouts were welcomed to the Geology building by members of Sigma Gamma Epsilon Earth & Environmental Sciences, student and community volunteers as well as industry experts. The scouts viewed displays, watched exhibitions and participated in numerous interactive environmental presentations.



EES student, Madeline Cross and Graduate student, Josh Hansen assist Girl Scouts in an interactive display.



Dr. Mark Kulp, Associate Professor

I hope this newsletter finds everyone doing well. As always, it is hard to believe that another year has passed.

The past 12 months have been filled with lots of travel, field work, and steady forward progress on several research projects. The year started with the kick off of a citizen-scientist based, National Academy of Sciences project in Dauphin Island, Alabama to document beach profile elevation changes and the distribution of tarballs. We advertised for volunteers to be part of the project in the beginning of January and within several days had seven interested Dauphin Island residents. **Dinah MayGarden** and **Carrie Miller** (UNO 2019) led the effort to get the citizens trained up and to date the group, largely working autonomously, has generated some outstanding beach elevation and tarball data. The project funding wraps up this year but we are actively seeking additional funding avenues to keep the project moving forward for years to come. In the second quarter of the year we finally received a signed contract from the Louisiana Center of Excellence to conduct a study of Pleistocene and Holocene fault motion across parts of the delta plain. UNO is the lead on this project with five subcontractors. It was a slow start but the project is now in full swing and we have already collected 25 vibracores in the marsh as part of the project. A second round of vibracore collection takes place in December and I think the whole team is looking forward to taking cores in much cooler weather with fewer flying insects.

Graduate students in the laboratory are doing well and several are very close to completing their graduate work. **Frances Crawford** (LSU, 2016) will be the first to finish with her work on shell ridges of the Biloxi marsh platforms. It turns out that in those marshes multi-meter scale accumulations of shells locally smother the marsh vegetation, which we think leads to faster marsh-edge erosion. **Celeste Woock** (U. of Alabama, 2016) continues her project, jointly with Dr. Alex Kolker of Tulane, to map the rates and spatial extent of subsidence across the delta plain using mosaicked Lidar data and should be finishing in spring 2019. Julie Torres (UNO, 2009) is nearing completion of her project on the progradation history of Grand Isle Louisiana and her recently obtained OSL dates there indicate surprisingly

fast beach ridge accretion rates for the island. **Jarrett Levesh** (Juniata College, 2016) simply has to defend his work on the location and slip history of the Delacroix Island fault in the Caernarvon Basin. I am quite happy to report that at the Louisiana State of the Coast meeting this past May Jarrett received an award for the best student presentation. **Bobby Mohollen** (West Chester University, 2017) and **Jared Bullock** (Millsaps College, 2017) are now a full year into their work using deep seismic data, well logs and shallow vibracores and high-resolution seismic to document Holocene slip along faults of the Pontchartrain basin and in Plaquemine Parish. **Joe Hankerson** (UNO, 2018) and **Riana Grout** (Central Washington University, 2018) are the two newest students in the group but we have not yet fully determined their graduate projects.

In other news my son Jonah just turned 8 and is doing great, never a dull day with him and he tells me that he is still leaning toward volcanology as a career. Mary was recently appointed assistant principal at St. Martins Episcopal school in Metairie and continues to do great things in the upper school math program there. This past summer was a big adventure as Jonah and Mary took off for Europe in early June, completing a three-week, whirlwind tour of London, Paris, Amsterdam and Munich with a St. Martins school group. I was unable to disappear for quite that long but did manage to break away from NOLA shortly after they left and did a tour of the Rhine Valley, catching up with a German family I used to live with and seeing German classmates I met while studying at the University of Marburg in central Germany. It was a great time and I ultimately caught up with Jonah and Mary in Munich before we all headed back home. The rest of the summer closed out with travels to see Pennsylvania family, fieldwork, the start of the fall semester.

Lots going on, be sure to stop in if you are around.



Fall 2017 students of earth structures mapping their way across the plunging axis of a large anticline within the Devonian Cheaha Quartzite and Erin Slate of the Talladaga tectonic block of east-central Alabama.



Residents of **Dauphin Island, Alabama** collecting beach profile elevation data using the "Emery" method for the Kulp project ***"Building Coastal Community Subject Matter Expert Capacity Through an Innovative Citizen Science Program to Collect Quantitative Beach Dynamic and Tar Ball Data for Oil Spill Planning and Response in Coastal Regions with Offshore Oil and Gas Operations."*** And yes that is the real title of the project!



Dr. Kulp and students trying to make the best of a cold and wet weather day at the top of Mount Magazine State Park in Arkansas during the annual spring Stratigraphy trip.



Graduate student Francis Crawford using a differential GPS to map the distribution and elevation of shell ridges in her marsh study sites.



The fall semester has been an exciting time to belong in the **Society for Earth & Environmental Sciences club (SEES)**. After helping host the **Privateer Plunge Event**, we held our *Back To School Department Cookout*. SEES has also been actively volunteering. The Girl Scout (BIG) event at the end of September had several members attend. Many will also be volunteering at the Gem and Mineral Show in October.

SEES is also getting ready to host its banner event: **The Mineral Auction**. Each year, the Mineral Auction brings alumni and current students together for a beautiful night full of *crystals, fossils, and fun*. Proceeds from the event go towards funding club activities, such as our annual Spring field trip, and scholarships for SEES members.



~ All the best, Matthew

The **Mineral Auction** will be hosted on **November 9th**, and is an event you truly don't want to miss.

SEES at the STEM Café. Dwayne Bertrand, Matthew Tift, Bennet Price, Sarah Sheppard and Devon Flanagan.



Student Scholarships and Awards 2017-2018

Chevron Geology and Undergraduate Scholarship

Benjamin Beasley
Quintin Burd

Casey McGowan
Lynette Osorio

Savannah Pousson
Sarah Sheppard

Geology & Geophysics Research Scholarship

Robert (Bobby) Mohollen

Glen Herbert Coastal and Environmental Scholarship

Cary M. Darbonne

Glen Herbert Petroleum and Geology Scholarship

Brittany L. George

Jennifer R. Miller Memorial Environmental Geology Award

Tandie E. Gautreau

New Orleans Geological Society Award

Jared Bullock
Jarrett Levesh

Hailey Robert
Matthew Tifft

Olga & Jules Braunstein Undergraduate Service Award

Jennifer M. Housey

Olga Braunstein Undergraduate Scholarship

Bailey Barrett
Stephen Bothner
Pamela Brehm
Brooke Carver

Shay Chandler
Joshua Eaton
Ernesto Hernandez
Korey Kramer

Ethan Kraner
Catalina Rubiano

Shell Minority/Women in Science

Frances Crawford
Meghan Gham
Brittany Kime

Carrie Miller
Julie Torres



Sigma Gamma Epsilon (SGE) Honors Society in EES

Sigma Gamma Epsilon had another great year where we have continued our tradition of volunteerism around the community. Members participated in beach sweeps, STEM events, the **Girl Scout 'Believe in Girls'** event, to name a few. On campus, we co-hosted an open house event for new students, and continue to staff the EES tutor center. Our future plans include visiting the LSU river model studio and hosting a graduate student seminar. The annual **W.A. Tarr Award** was presented to **Benjamin Beasley**, who throughout his graduate studies was the embodiment of scholastic, scientific, and professional achievement.

-Carrie Miller, SGE Gamma Omicron Chapter President

2018-2019 Officers:

Carrie Miller, President
Jared Bullock, Vice-President
Hailey Roberts, Secretary



Carrie Miller began working in Dr. Kulp's lab in January 2017 on a **NAS Gulf Research Program** funded project. The project is focused on developing an innovative, community-based approach for documenting shoreline processes and background oiling in Dauphin Island, AL. This fortuitous opportunity has worked impeccably for her, as it blends her Coast Guard oil spill response experience with her B.A. in Sociology (UGA) to assist in creating a viable long-term citizen-science program grounded in a quantitative model. Many weekends have been spent in Dauphin Island but most of the time you will find her working with these datasets and generating metadata for long term storage.

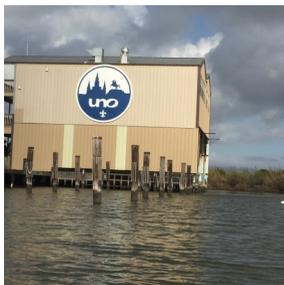
Dr. Kraig Derstler, Associate Professor

It warms my heart to see that UNO is showing faint signs of regrowth, after 15 years of collapse. Recall that we were LSU's financial whipping boy for decades and the state never came close to appropriating the funding that they computed to be our annual state minimum. Then, we received a state order to close our doors after Katrina in 2005, which Tim Ryan heroically resisted. This was followed the reign of the academic equivalent of corporate raiders, who gave away university assets and twice declared official exigency to break tenure contracts, slash budgets, and shed faculty. On top of this, we suffered horribly with Bobby Jindal's "management" of state budgets and assets. The end result was a vast reduction in UNO student enrollment and faculty. Those days may be over; one sure sign of recovery is new faculty. And so it is my great pleasure to welcome Dr. Robert Mahon to EES. We have a long way to build before we return to the 14 faculty that we had in the past, but Robert is an outstanding beginning.



Along these lines, I would like to help with UNO's rebuilding, especially to honor the original achievements of the geology faculty that hired me so many years ago. But year after year, hanging on in hopes of even tiny raises to improve my pension, it was pretty clear that this was a pipedream. Throughout my 37 years in New Orleans, surrounded by swamps, embarrassing politics, and modern mud, I have mourned the lack of Early Paleozoic fossils. I love New Orleans' food, music, and many of the people, but it is almost time to move on, retiring to a place where I can collect the fossils I also love. Hopefully, within a year or two, I will bid NOLA farewell and return to the land of trilobites and crinoids.

PIES Coastal Education Program ~ Goings-on at CERF and Elsewhere



The **PIES Coastal Education Program**, based at the Shea Penland Coastal Education Facility, has been very busy working with teachers and students to promote coastal and environmental science understanding. During the summer we hosted or co-hosted

three teachers' workshops at CERF and on the UNO campus with a total of approximately 100 teachers benefiting. Some teachers were from as far away as Minnesota, while most were from Greater New Orleans and are now following up by bringing their students out to learn in the field too. Already this semester CERF has seen about 150 students all participating in hands-on science activities.

In addition, **Dinah Maygarden** received a contract from the **Lake Pontchartrain Basin Foundation** to implement a NOAA grant on LPBF's behalf, involving working with

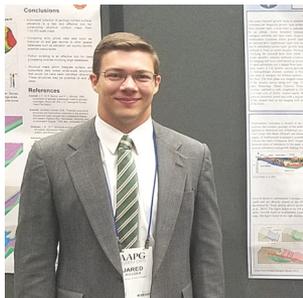
teachers, Master Naturalist volunteers and students at Pontchartrain Beach. Students field trips will take place during November during which students will collect several types of data, including water quality sampling, beach profile measurements, seining, and marine debris surveys, to learn about the beach and its place in the Pontchartrain es-

tuary.



PIES is always looking for help to enhance the quality of the experiences we offer to the K-12 education audience. If any EES students are interested in getting involved in some way, please contact Dinah at dmaygard@uno.edu.

2018 EES Graduate Students



Jared Bullock is a M.S. candidate, after completing a B.S. in Geology from Millsaps College he enrolled at UNO to begin his graduate school journey. His M.S. thesis is focused on implementing oil and gas industry data with near-surface data to assess whether deep-seated growth faults have affected modern geomorphology. In the Spring 2018 semester, he was a member of UNO's **Imperial Barrel Award Team**

that placed second at the Gulf Coast Regional competition. Jared has been selected to participate in the ExxonMobil/SEG Student Education Program this October in Anaheim, California. Upon completing his M.S. degree in 2019, he plans on pursuing a career as a geologist in the oil and gas industry.

Robert (Bobby) Mohollen, M.S. in EES, B.S. in Geoscience from West Chester University (P.A.). I am working on my thesis: *Time and Magnitude of Slip of East Orleans Land Bridge*,



which includes studies of coastal land loss and local faulting in the region of the East Orleans Land Bridge in between Lake Pontchartrain and Lake Borgne. Previous studies, such as those by recent graduate Joseph Frank, have mapped faulting and extent of slip of Lake Pontchartrain and Lake Borgne Fault Systems. Our study will map the extent and measure a rate of these fault systems near the East Orleans Land Bridge using vibracores,

CHIRP seismic, and deep well logs. I have received the *Department of Earth and Environmental Science Scholarship Spring 2018* and second place at the *Imperial Barrel Award Gulf Coast Regional Competition*. I hope to use my knowledge and experience from the University of New Orleans to acquire my Geologist-In-Training (GIT) License and secure a career in the petroleum industry.



Jessica Villers Recipient UNO Master's Award Scholarship

Jessica is a master's candidate investigating water and sediment fluxes in restored and un-restored marsh shorelines. To do this, she will be comparing various restoration methods used as stabilization structures along shorelines to their natural counterparts by collecting data through field experimentation. Villers

was born and raised in the city of New Orleans and grew up spending her weekends along the gulf coast where she was exposed to the effects of the coastal crisis aiding to her interest in geology and coastal studies. She graduated from the Louisiana State University in December 2017 with her bachelor's in Geology and joined Dr. Ioannis Georgiou's research group in August 2018. **Louisiana Sea Grant funded by the Coastal Protection and Restoration Authority (CPRA)** also granted Jessica an assistantship.



**Julie
Torres**

**Recipient of Shell
Minority or Women in
Science Scholarship,
Spring 2018 and
the Richard W. "Dick"
Boebel Graduate
Scholarship awarded by
New Orleans Geological
Society, Fall 2017.**

I've almost completed my thesis, which entails reconstructing the geomorphic evolution of Grand Isle, LA and investigating the factors contributing to the island's stability relative to other barrier islands along the LA coast.

I will be presenting on the use of optically stimulated luminescence in my thesis research at Geological Society of America (GSA) conference in November.

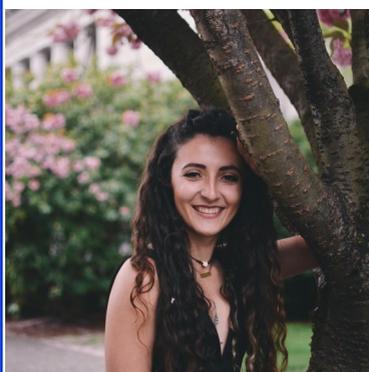
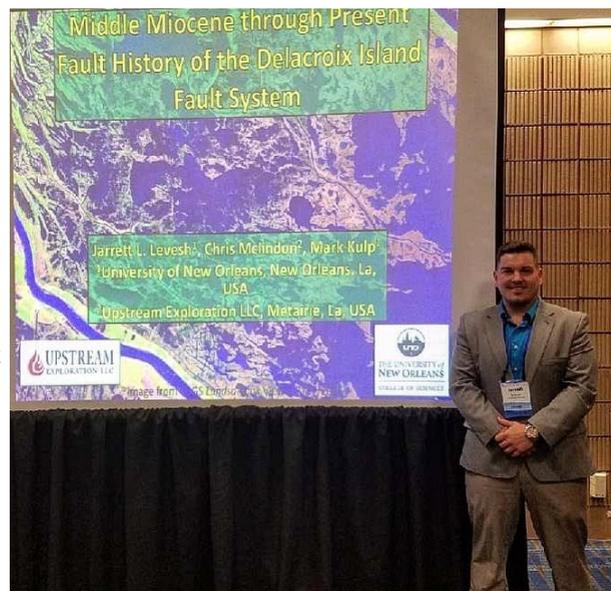
Masters Student, Jarrett Levesh



University of New Orleans Graduate student Jarrett Levesh originally hails from Branford, Connecticut. Prior to enrollment at UNO he earned his B.S. in geology from Juniata College in Huntingdon, Pennsylvania. This past spring he served as the team leader of UNOs Imperial Barrel Award team, which came in second at the Gulf Coast regional competition. Jarrett has been the recipient of multiple awards including two memorial foundation scholarships from the **New Orleans Geological Society** and a **Chevron Geology Graduate Scholarship**.

Most recently, Jarrett was one of only three graduate students to be awarded for an oral presentation at this year's **State of the Coast Conference**, which was held May 30th-

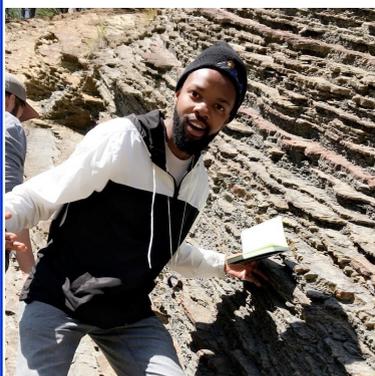
June 1st at the New Orleans Ernest N. Morial Convention Center. The SOC conference is the largest statewide conference of its kind providing an interdisciplinary forum to exchange timely and relevant information on the dynamic conditions of Louisiana's coastal communities, environment and economy. Levesh presented his thesis research related to motion along the Delacroix Island fault in Plaquemines Parish, LA. This research uses industry well logs and 3D seismic data to study the history of fault motion and how it affects modern day geomorphology. Levesh's review of this data indicates that movement along the fault may be contributing to marsh submergence, a critical factor in the design of future infrastructure or mitigation projects. The project excellently portrays the importance, and success to date, of a collaboration between the oil and gas industry and academia to better understand and



Riana Grout. Hi there! My name is Riana, I am 22 and from Washington state. I received my Bachelor of Science degree in Environmental Science specializing in geology from Central Washington University in June of 2018. I moved down south just 3 days after graduation! I have 2 horses and a cat and they all made the move with me. My advisor is Dr. Mark Kulp and I am thinking about doing my thesis on something related to erosion but that is all up in the air right now.

Md Mohiuddin Sakib, graduated in Civil and Environmental Engineering from Islamic University of Technology, Dhaka, Bangladesh. he started his MS in EES in Fall 2018. Currently, a Graduate Research Assistant with Dr. Georgiou he is working on a couple of SWAN wave models with the flow module (Delft3D Modeling Suite). Following graduate school, he plans a career in the field of coastal engineering.

Joseph Hankerson, Joseph is a Grad Assistant pursuing his graduate degree under Dr. Mark Kulp. He is studying Coastal Geomorphology, and has hopes of carrying out research related to stratigraphy and geomorphology. Joseph's Favorite Fruit: "Apples", but as Joseph is a North Carolina native we won't talk Football! (at least not until Monday Night, December 17!)



Pontchartrain Institute for Environmental Sciences



**Meghan
Gahm**

My dissertation research at UNO is on the development and evaluation of specialized Turtle Excluder Devices (TEDS) for small shrimp trawls that currently are not required to use a TED for mitigating sea turtle bycatch. The gear types we evaluated were try nets that have a headrope length <12 ft., skimmer trawls on vessels <26 ft., and wing nets in the Biscayne-Bay, Miami, FL pink shrimp fishery. In 2016-2017, we first developed and tested multiple prototype TEDs with the National Marine Fisheries Service for gear performance off a research vessel in Panama City, FL. Then in 2017-2018, we evaluated the effects of these TEDs on catch retention of shrimp and bycatch within the commercial fisheries. I had the opportunity to present our research at the Southeast Regional Sea Turtle Meeting in February 2018 and at the American Fisheries Society National Meeting in August 2018. I will be continuing with data analysis to determine the effectiveness of the TEDs within the three fisheries evaluated.



TED Construction

Sewing a TED for gear performance evaluation on the NMFS R/V Caretta



TED Skimmer

A specialized TED equipped in a skimmer vessel in southern Louisiana

Association of Petroleum Geology-AAPG

The American Association of Petroleum Geologists (AAPG) UNO student chapter is utilized to expose students to current events, topics and opportunities in the oil and gas industry. Last academic year we hosted **Upstream Exploration geologist Tom Bergeon** as well as **Statoil geologist Laura Zahm** as guest speakers. We had the opportunity to learn about the history of hydrocarbon exploration in the Gulf of Mexico from Tom and Mesozoic Carbonates of the Gulf of Mexico from Laura. Last spring we arranged a club visit to a functioning oil rig with the generous support of Upstream Exploration LLC. It was unfortunately canceled due to bad weather but we look forward to rescheduling that this year! We recently helped run the department's first Privateer Plunge event, an EES Open House. The event provided the opportunity for new students to explore the disciplines of the EES department, including petroleum geology (Geosciences). AAPG students, among many peers, worked diligently to ensure the event ran smoothly and successfully.

2018-2019 AAPG Officers

Jarrett Levesh, President
 Jared Bullock, Vice President
 Bobby Mohollen, Treasurer
 Secretary –to be elected

As you may have heard, our **Imperial Barrel Award (IBA)** competition team placed second at the **2018 Gulf Coast Regional Competition!** The team, comprised of Jarrett Levesh, Jared Bullock, Bobby Mohollen and Brittany George, competed in Houston against some of the most prestigious oil and gas universities in the country. Multiple students will also be presenting posters at upcoming conferences including the GSA annual meeting in Indianapolis, IN and career expositions in Houston, TX and Laramie, WY. Our chapter is very grateful for the services and support provided by the **New Orleans Geological Society (NOGS)**. Their monthly luncheons and events provide our students with vital learning experiences and networking opportunities. We would also like to thank **Toby Roesler** and **Brad Robison** who have both dedicated countless hours providing guidance to our students. Both Toby and Brad served as advisors for the IBA team and Brad also voluntarily teaches the Petroleum Geology course as well as serving on multiple graduate student councils. Finally, we would like to thank the departments' generous alumni for their continued support and financial contributions at the annual Mineral Auction, this student chapter would not be possible without you all! ~Jarrett Levesh President



2018 IBA Team: Jared Bullock, Brittany George, Taylor Runyan Lee, Jarrett Levesh, and Bobby Mohollen



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Earth and Environmental Sciences

EES

2000 Lakeshore Drive
Geology/Psychology Building 1065
New Orleans, LA 70148
Phone: 504-280-6326
Email: rejackso@uno.edu
Editor: Robin Jackson

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Address; Phone. (address and phone will not be published).
Please add a **Short Bio**: Two to five sentences on whatever you'd
like to share (career, family; accomplishments).

DONATIONS AND GIFTS TO EES

The Department of Earth and Environmental Sciences has thrived in large part because of the support of our alumni and friends. Monetary contributions have allowed teaching, research, and scholarship programs within the Department to flourish.

The Earth & Environmental Sciences Fund (No. 90243) supports special projects, departmental seminars, student events and travel to out-of-state conferences.

The **UNO Foundation** manages the Department fund. The preferred form of donation is via check, payable to **The University of New Orleans Foundation** and mailed to the **EES Department Office**, with reference to the department or the fund.

EES is greatly appreciative of contributions. Thank you in advance for your donation.

SPECIAL THANK YOU FOR YOUR GIFTS (2017-2018)

Contributors to the Department of Earth and Environmental Sciences

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