FLORIDA INTERNATIONAL UNIVERSITY

Department of Earth and Environment Newsletter

Fall 2025
Vol. 2, Issue 2

INNOVATE. ELEVATE. BE UNSTOPPABLE

COLLEGE OF ARTS, SCIENE & EDUCATION

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MESSAGE FROM THE CHAIR

It is my privilege to serve as Chair of the Department of Earth & Environment (E&E). The department offers a wide range of undergraduate and graduate programs and disciplines designed to prepare students for impactful careers in environmental science, geosciences, and sustainability.

At the undergraduate level, E&E offers degrees in Environmental Studies (BS) with majors in Agricultural Sciences and Natural Resources Sciences; Earth Science (BA); Earth Sciences Education (BA); Geosciences (BS) with majors in Atmospheric Sciences, Geological Sciences, and Geoinformatics; Sustainability and the Environment (BA); and Global Sustainable Tourism (BA), which is a joint degree with the Chaplin School of Hospitality & Tourism Management.

Our graduate programs include Environmental Studies (MS), Geosciences (MS), the Professional Science Master's in Environmental Policy and Management (PSM-EPM), and Earth Systems Science (PhD). In addition, we offer three undergraduate certificates, Environmental Studies, Agroecology, and Biodiversity Conservation and Management, and four graduate certificates in Biodiversity Conservation and Management, Environmental Studies, Geographic Information Systems (GIS), and Water, Environment and Development Studies. These certificates provide specialized training that further enriches our academic offerings.

The department is home to nearly 35 full-time faculty members, including three Distinguished University Professors, 15 postdoctoral researchers, over 400 undergraduate, and 130 graduate students. E&E is consistently ranked among the top departments at FIU in terms of external research funding.

Our alumni are making meaningful contributions across a wide range of sectors, including federal agencies such as USGS, NOAA, USDA (ARS, Park Services, Farm Services, NRCS), NASA, NSF, EPA, FWC, and FWS. Locally, they serve in organizations such as the South Florida Water Management District (SFWMD), Miami-Dade DERM and WASD, botanical gardens, Ag. sector, and sustainability offices. Many students also gain valuable experience through internships with city and county governments, environmental consulting firms, and educational institutions, taking on roles such as sustainability officers, climate resilience analysts, plant scientists, meteorologists, geoscientists, conservation planners, and environmental educators.

We are proud to share that the Department of Earth & Environment's program has been recognized in the QS World University Rankings by Subject, placing among the top public universities for environmental sciences. This recognition reflects the dedication and excellence of our students, faculty, and alumni.

FIU Florida International University

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Message from the Chair

Earlier this year, FIU named “Experience Impact” as the top strategic focus area in its 2025–2030 Strategic Plan, with environmental resilience identified as a central focus. This vision aligns perfectly with our mission at E&E, guiding our efforts in education, research, and community engagement.

Finally, I warmly invite you to attend our annual graduate and undergraduate research symposiums, or to stop by the department if you're ever nearby. We would be delighted to welcome you and introduce you to our outstanding students and faculty.

Sincerely,

Amir A. Khoddamzadeh, Ph.D.

Chair & Associate Professor, Department of Earth and Environment

August 19, 2025 Faculty Retreat, International Center for Tropical Botany at the Kampong.

Graduate Student Notes

Graduations

Spring 2025 Graduation:

The Department graduated 7 Environmental Studies Master’s students in the Spring 2025 semester ceremony. Congratulations and best wishes to **Taylor Bonachea**, **Gabriel Montecchi**, **Noah Frade**, **Lucas Le Fournis**, **Milagros Munoz Salas**, **Victoria Ortiz**, and **Joseph Navarro**.

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Graduations (Cont'd)

Faculty at Spring 2025 Graduation. Left-to-right, back row: Amir Khoddamzadeh, Mahadev Bhat, Hugh Whilloughby, Clinton Jenkins, Assefa Melesse, Cara Rockwell. Left-to-right, front row: Rodolfo Rego, Robert Burgman, Len Scinto, and Tatiana Goana

Dean Whitman, Executive Dean of College of Arts, Sciences, and Education Michael Heithaus, Barbara Nogueira Souza Costa, Kateel Shetty, and Amir Khoddamzadeh.

Summer 2025 Graduate **Milagros Munoz Salas** and Amir Khoddamzadeh

Graduations (Cont'd)

Summer 2025 PhD graduates and Faculty Advisors:

The Department graduated 3 PhD students in the Summer 2025 semester ceremony. Congratulations to **Dr Julian Alwakeel Almeyda** (Advisor René Price), **Dr Rosario Vidales** (Advisor Mike Ross) and **Dr Ivan Oyege** (Advisor Maruthi Sridhar Balaji Bhaskar). Summer 2025 Graduation.

Left-to-right: Maruthi Sridhar Balaji Bhaskar, **Dr Julian Alwakeel Almeyda**, Rene' Price, Hugh Whilloughby, **Dr Ivan Oyege**, Len Scinto, Dean Whitman, Kateel Shetty, **Dr Rosario Vidales**, Jessie Blanchard, Barbara Nogueira Souza Costa, and Amir Khoddamzadeh.

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Current Graduate Student Activities

Awards

UGS Fellowships Awarded

Associate Dean René Price announced the recent University Graduate School awards to Earth and Environment Students:

Summer 2025 Dissertation Evidence Acquisition Fellowship Awardees:
Summer 2025:
Juan Velasquez
Moses Kiwanuka

Fall 2025 Presidential Fellowship Awardees:
Maria Herrera
Alihan Teke

Fall 2025 Dissertation Fellowship Awardees:
Blaire Kleiman
Cody Eggenberger
Moses Kiwanuka

Spring 2026 Dissertation Fellowship Awardees:
Mekdelawit Deribe
Ethiopia Zeleke
Jessica Dominguez
Tania Islam

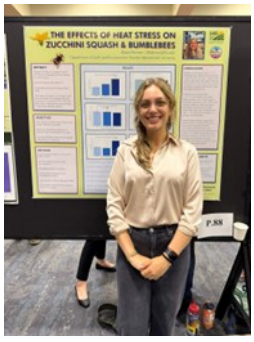
Spring 2026 Summer 2025 Dissertation Evidence Acquisition Fellowship Awardees:
Aujeeta Razzaque

Two E&E students were chosen as Graduate Student Advisory Board members - advising UGS of graduate student affairs:
Michael Borbolla,
Trishna Rayamajhi

Blaire Kleiman (co-advised with Krish Jayachandran):

Presentations

- 2025 Botanical Society of America: “The Effects of Heat Stress on Zucchini Squash and Bumblebees”; Palm Springs, CA, July 26-30



Scholarships/Awards

- Garden Club of America Corliss Knapp Horticulture Award ($3000)
- Greater Miami Jewish Federation ($1500)
- Florida Federation of Garden Clubs ($3000)

Other Graduate Student Items

Awards (Cont'd)

Demonica Brown (co-advised w/Brittany Harris from GIS Center):

Presentations

- 2025 Caribbean Natural History Conference: "Drivers of Nest Site Selection in Underground Nesting Bahama Parrots on Great Abaco"; December 2-3 (virtual)
- Association for Tropical Biology and Conservation: "Drivers of Nest Site Selection in Underground Nesting Bahama Parrots on Great Abaco"; Oaxaca, Mexico, June 29-July 4
- 2025 American Ornithological Society Conference: "Drivers of Nest Site Selection in Underground Nesting Bahama Parrots on Great Abaco"; St. Louis, Missouri, Aug 11-15

Scholarships/Awards

- Tinker Field Research Grant ($3000)
- Neotropical Birding and Conservation Award ($3000)
- Wilson Ornithological Society grant ($4500)
- Wilson Family Foundation grant ($6000)
- Conference Travel Grant ($500): ATBC
- Conference Travel Grant ($600): Wilson Ornithological Society
- Conference Travel Grant ($1520): American Ornithological Society

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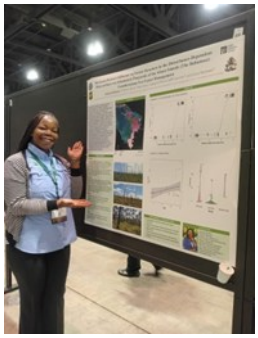

Latonya Williams:

Presentations

- 2025 Society of American Foresters Conference: "Forest Structure and Regeneration in the Disturbance-dependent *Pinus caribaea var. bahamensis Pineyards of the Abaco Islands (The Bahamas): Considerations for Forest Management"; Hartford, Connecticut, October 22-25*

Meredith Preve:

Scholarships/Awards—Tropical Fern and Exotic Plant Society ($500)

Undergraduate Student Notes

The Agroecology Program hosted its 18th Annual Thanksgiving Luncheon on November 21st Friday at the Campus Organic Garden. Approximately 60 students, staff, alumni, and faculty attended.

The local chapter of the Florida Native Plant Society's latest newsletter contains an article written by one of the Department's undergraduate students in Agroecology, **Mia Davis**. She recently received $1500 from FNPS for the Dan Austin Award in Ethnobotany.

2025 FNPS DAN AUSTIN GRANT AWARD FOR ETHNOBOTANY

An update on *Trichostigma octandrum* in South Florida:
Implications for Wild and Cultivated Populations of an Ethnobotanical Species

Mia Davis, Agroecology Program, Department of Earth & Environment,
Florida International University, Miami, FL 33199

Undergraduate Student Notes (Cont'd)

Geology Club tabling in GC during Earth Science Week-Fall 2025

The Geology Club shared rocks and minerals with the public in the Graham Center during Earth Science Week.

Lukas Tejada manning the Geology Club table.

Agroecology Trip to Colombia

Four students from the agroecology program returned from a successful seven-day Special Experiential Learning trip to Colombia, led by **Dr. Kateel Shetty** and **Professor Krish Jayachandran**. This trip was part of the USDA-NIFA Multicultural Scholars program-funded educational project and included a three-day visit to the Alliance of Biodiversity International and the International Center for Tropical Agriculture (CIAT) and two-day visit to the Colombia national coffee (CENICAFE) and sugarcane (CENICANA) research centers. CIAT's mandate crops are beans, cassava, rice, and tropical forages. CIAT's Future Seeds is a cutting-edge genebank located in Palmira, Colombia, and holds the world's largest collections of beans, cassava, and tropical forages. The institute also does research on coffee and cocoa. The trip focused on the application of digital technologies, such as GPS, drones, sensors, and data analysis, to optimize farming processes for greater efficiency and sustainability. Students learned about real-world applications and benefits of digital agriculture. Demonstrations included receiving real-time data on soil conditions, weather, and crop health, enabling more informed decisions; precision application of water, fertilizers, and pesticides to minimize waste and reduce environmental impact; technologies like drone imaging and AI that help to detect pests and diseases early, allowing faster responses and preventing crop loss; digital tools to facilitate climate change mitigation and adaptation by providing data to model scenarios and develop resilient farming practices.

Undergraduate Student Notes (Cont'd)

Agroecology Trip to Colombia

The trip offered students immersive, hands-on learning experiences that go beyond the class-room, a more well-rounded perspective on the subject, increased independence, and enhanced global awareness. Officials and scientists at the institutions visited expressed strong interest in future grant and research collaboration with FIU faculty and student participation in international projects. The FIU Office of Education Abroad provided invaluable assistance to the participating students with their guidance and support.

Garden Club hosted a tabling event in the Graham Center. They sold plants, cards, seeds and more to fundraise for future club events. They also helped the Geology Club remove vegetation from the limestone exposure in the FIU Nature Preserve.

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Alumni Notes

We love to hear from our Alumni! Please send us an update, current photos, etc., and keep in touch! You can use this link to get us your contact information; please share it with your classmates and friends that we may have lost track of and might not be receiving this newsletter.

In the end, we could use some donations from you. Please visit https://case.fiu.edu/earth-environment/give/ to help us out.

Dr Ivan Oyege (PhD Earth Systems Science, 2025) is a Postdoctoral Associate in the Department of Earth and Environment at Florida International University (FIU), working with **Dr Maruthi Sridhar Balaji Bhaskar** and a Fulbright Scholar from Uganda. His research bridges chemistry and environmental science to promote sustainable agriculture. Ivan earned his bachelor's and master's degrees in Chemistry from Busitema University and Makerere University in Uganda.

At FIU, Ivan completed his PhD under **Dr Maruthi Sridhar Balaji Bhaskar**, focusing on how vermicompost and its derivatives enhance soil fertility, crop physiology, and resilience to Fall armyworm in corn–strawberry rotation systems. His dissertation integrated field experimentation, remote sensing, nanotechnology, and machine learning to evaluate plant performance and detect early pest stress. This work earned him FIU's Outstanding Graduate Student Award (Summer 2025) and the Best Dissertation Award from the College of Arts, Sciences, and Education, along with the Outstanding Mentorship Award from the FIU Agroecology Program.

During his doctoral training, Ivan received multiple honors, including the Fulbright Foreign Student Scholarship, Dissertation Year Fellowship, Dissertation Evidence Acquisition Fellowship, and the Robert V. Farrell Global Learning Scholarship in Sustainable Development. He has published several peer-reviewed papers and presented at leading conferences such as AGU and ASA-CSSA-SSSA.

Dr Martina Rogers (PhD Earth Systems Sciences, 2023) began her career with HBC Engineering Company in early 2022 as a Consultant and Groundwater Modeler supporting the Miami-Dade Water and Sewer Department's (MDWASD) groundwater modeling team while simultaneously completing her doctoral studies at FIU. In her role, she contributes to the development of a fully density-dependent groundwater model for the Biscayne Aquifer to simulate groundwater flow, evaluate saltwater intrusion under sea-level-rise scenarios, and assess potential impacts to major wellfields. Martina also conducts numerical simulations of groundwater flow and contaminant transport in the Floridan Aquifer System, including modeling ammonia migration to ensure that plumes associated with deep injection wells do not threaten the Underground Source of Drinking Water

Alumni Notes (Cont'd)

Martina began her academic journey at Broward College before earning her BS in Environmental Science in 2017. She completed her MS in Geosciences at FIU in 2021 and her PhD in Earth Systems Science at FIU in 2023, where she was advised by **Dr Mike Sukop**.

Dr Miguel E. Valencia (PhD Earth Systems Science, 2024) is a Postdoctoral Researcher at the Pacific Northwest National Laboratory (PNNL), where he supports groundwater modeling initiatives across PNNL and other DOE-related projects. Miguel specializes in flow and reactive transport simulations using MODFLOW 6 and PFLOTRAN. His key applications include assisting in creating a reactive-transport groundwater model that simulates arsenic mobilization and its impact on water quality in aquifer storage and recovery (ASR) systems, as well as the numerical modeling of long-screened well dynamics for groundwater remediation.

During his doctoral research at FIU advised by **Dr Michael Sukop**, Miguel made significant contributions to simulating particle tracking and transport of septic effluents in Miami-Dade County, leading his work on regional assessment of septic effluent transport in groundwater and discharge in Miami-Dade County, Florida. Miguel actively contributes to professional service through the Geological Society of America (GSA) , where he has served as Student Representative of the Hydrogeology Division, Student Representative of the Southeastern Section, and Chair of the Student Advisory Council. He is also a GSA Representative on the AGU Support Early Career and Student Communities Task Team.

Recently graduated PhD Student **Julian Alwakeel Almeyda** (Summer 2025) received a position as Hydrologist with the Seminole Tribe of Florida.

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Faculty Notes

Awards

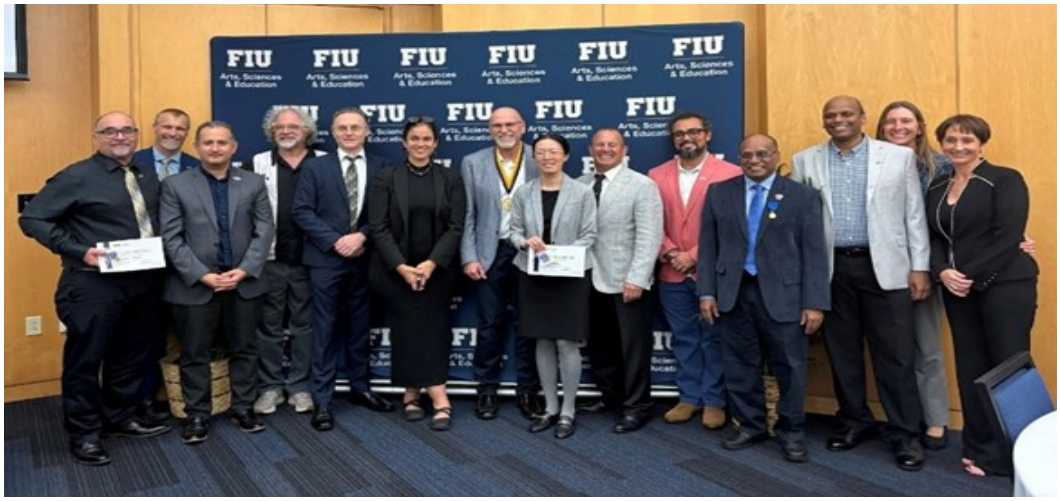
2025 FIU College of Arts, Sciences & Education Faculty Recognition Awards

Department faculty were honored with the 2025 FIU College of Arts, Sciences & Education Faculty Recognition Awards, celebrating excellence in Community Engagement, Research, Service, and Teaching. Department Chair **Amir Khoddamzadeh** wrote that "Each of our awardees exemplifies the dedication, passion, and excellence that define the FIU College of Arts, Sciences & Education. Their commitment to advancing knowledge, serving our communities, and inspiring students is truly commendable."

Awardees were **Dean Whitman, Clinton Jenkins, Leonard J. Scinto, Cara Rockwell, Maruthi Sridhar Balaji Bhaskar, Paulo Olivas, Wei Huang, Rodolfo Rego, Tiffany Troxler, Jay Sah, Mike Sukop, and Tatiana Gaona Narvaez.**

Special congratulations to **Dr. Shimon Wdowinski** for receiving the very first **Dean's Impact Award,** a remarkable achievement that highlights his transformative contributions.

Thanks to Executive Dean **Michael Heithaus** and Dean **Ana Luszczynska** for their support and visionary leadership in recognizing and uplifting the outstanding works of our faculty.



College of Arts, Sciences,and Education Earth and Environment Department awardees and Deans. (l to r) Rodolfo Rego, Executive Dean Michael Heithaus, Amir Khoddamzadeh, Dean Whitman, Clinton Jenkins, Cara Rockwell, Shimon Wdowinski, Wei Huang, Len Scinto, Paulo Olivas, Jay Sah, Maruthi Sridhar Balaji Bhaskar, Tiffany Troxler, and Dean Ana Luszczynska.

Awards (Cont'd)

Earth and Environment Faculty Member Awarded American Geological Society Lectureship

Professor Mike Sukop was awarded the Hydrogeology Division Birdsall-Dreiss and Lamoreaux International Distinguished Lectureship for 2026. The selection is based on outstanding contributions to hydrogeology through original research and public communication, and the potential for continued contributions to the profession. Sukop joins an impressive list of prior lecturers beginning with Jacob Bear in 1978, followed by Sukop's first hydrogeology teacher at Penn State, Professor Richard Parizek in 1983, and his post-doc advisor Professor Dani Or in 2013.

Professor Mike Sukop receiving the Geological Society of America Hydrogeology Division's Birdsall-Dreiss/LaMoreaux Award in San Antonio in October 2025.

Sukop's lectures are:

"A Bellwether for Change: Groundwater and Sea Level Rise in Southeast Florida" and
"The Enigmatic Biscayne Aquifer: Field, Laboratory, and Computational Approaches".

He will give the groundwater lecture at FIU on March 27, 2026 as part of the Department's seminar series.

More information is available at GSA Hydrogeology Division.

Other Faculty Items

Department Faculty appear in FIU promotional video

Distinguished University Professors **Jayachandran** and **Melese** appear in this FIU promotional video about faculty who are changing the World:

Celebrating impact: FIU recognizes faculty who are changing the world

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Other Faculty Items (Cont'd)

Agroecology program hosts soil health workshops in South Africa

Professors **Maruthi Sridhar Balaji Bhaskar** and **Krishnaswamy Jayachandran** from the Department's agroecology program hosted a series of soil health workshops in South Africa this past summer. The story was picked up by FIU News as a Science and Technology feature:

Get it to grow: FIU shares agricultural knowledge with farmers in South Africa

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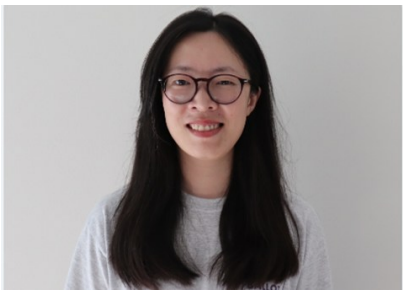
Dr. Wei Huang and team work on Biscayne Bay featured in FIU News



At FIU's Institute of Environment, **Huang** leverages advanced computer modeling to reveal how powerful winds and devastating storms shape the future of the bay.

Oceanographer provides rare scientific look at effects of storms on Biscayne Bay

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Faculty featured in FIU News as experts available to discuss 2025 hurricane season

Drs. **Obeysekera** and **Wdowinski** and Atmospheric Sciences Program faculty Dr **Willoughby**, Dr **Jiang**, Dr **Zhu**, Dr **Mozumder**, and Dr **Leatherman** are featured in this FIU News article.

Shimon Wdowinski on Taiwanese TV

Shimon Wdowinski appeared in this Taiwanese TV program about Miami (at 15:40). **Hong Liu** pointed out that Shimon's affiliation was mistakenly labeled as University of Florida!:

Taiwan SETNEWS Live Channel

Other Faculty Items (Cont'd)

Professor Stephen Leatherman (Dr Beach) Continues Long Tradition of Naming America's best beaches

Professor Leatherman is an internationally known coastal scientist who has published 20 books and hundreds of scientific articles and reports about storm impacts, coastal erosion, and ways to improve beach health and safety. He is a scientific advocate for America's beaches, focusing on conserving the environmental integrity of the United States' coastal areas.

Professor Leatherman has selected the Top 10 Beaches annually since 1991. Previous national winners are retired and listed on his web site. Fifty criteria are used to evaluate beaches, which include water and sand quality as well as safety and management. New York's Coopers Beach named America's best beach as 3 others stricken from top 10 | FIU News - Florida International University

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Hugh Whilloughby interviewed by FOX News

FIU retired **Research Professor Hugh Willoughby** joins FOX Weather's Bob Van Dillen to talk about the recent explosion in tropics activity in the Atlantic:

https://www.foxweather.com/watch/fmc-arbzi4p3cjdvmnth

Visiting Research Assistant Professor Dr. Raja Ragupathy

Dr Raja Ragupathy is a Visiting Research Assistant Professor in the Department. Earlier, he served as a Scientist at the Directorate of Research, Tamil Nadu Agricultural University, Coimbatore, India; and a Research Scientist with Agriculture and Agri-Food Canada (AAFC), specializing in crop breeding, genomics and quantitative genetics.

Chair Amir Khoddamzadeh Establishes Global Council for Science and the Environment EnvironMentors® Chapter at FIU

As Senior Fellow with Global Council for Science and the Environment (GCSE), Department Chair **Dr Amir Khoddamzadeh** announced the establishment of the EnvironMentors® Chapter at FIU: "EnvironMentors® is a science education and national college access program with a mission to mentor and motivate high school students in the sciences as they plan and conduct environmental research and acquire skills that will allow them to build careers and contribute to real-world environmental solutions." https://www.gcseglobal.org/environmentors

Other Faculty Items (Cont'd)

Thanks to the long-standing collaborations initiated by **Dr Krishnaswamy Jayachandran**, especially with Hialeah Gardens Senior High, and the dedication of talented students and educators like Ms. Castillo, a Dual Enrollment Horticulture Science course (upper division level) was successfully launched and has now run for two years with great success. The goal is to expand this course offering to additional schools in the near future.

Two students who participated in the course and completed internships under the mentorship of Drs Jayachandran and **Locke** (along with their teacher) have been fully funded to attend the International Science Fair in Chicago this June and present their posters along with their teacher. This success illustrates the strength of the EnvironMentors® pyramid model, connecting high school students, graduate students, teacher mentors, and faculty mentors to create a pipeline for environmental research and leadership.

Transitions

Professor Grenville Draper retired after nearly 50 years of service to the Department including a stint as Department Chairperson of Geology 1991-1994. He joined the former Physical Sciences Department in 1978 and was one of only two geology faculty. Dr. Draper was awarded one of the University's first National Science Foundation grants in the physical sciences in 1984 paving the way for FIU's rise to a major research institution. Dr. Draper's expertise is in tectonics and structural geology (rock deformation). He has a particular interest in high-pressure, low temperature metamorphic terranes of the Caribbean and their role in the plate tectonic evolution of that part of the world. He is credited with the first discovery of such blueschist/eclogite rocks in Jamaica and Hispaniola. Dr. Draper taught introductory geology and structural geology/tectonics to generations of FIU students. He lives in Kendall with his wife Carmen. We celebrated Gren's retirement at our long-time lunch haunt on August 23, 2025. Photographs are available here: https://photos.app.goo.gl/Dd5NaPP2bABshViK9

Distinguished Research Professor Hugh Whilloughby also retired this summer after founding FIU's meteorology program in 2003, and serving as teacher and researcher for 22 years. He is an Elected Fellow of the American Association for the Advancement of Science. Before coming to FIU, Willoughby served as Director of the NOAA's Hurricane Research Division from 1995 to 2003. His research interests are in the dynamics of hurricane motion, structural evolution and intensity change using theoretical models and analysis of observations---generally radar and in-situ data from instrumented aircraft. He made more than 400 research and reconnaissance flights into the eyes of hurricanes and typhoons.

Transitions (Cont'd)

He also works on hurricane human and economic impacts, analyzing statistical distributions and trends in hurricane-caused damage and mortality. He is also interested in temporal and geographical changes in the climatology of hurricane landfalls. He has been working with colleagues in FIU's School of Computing and Information Sciences and at IBM to develop a framework for massively parallel ensemble simulations of hurricanes using the advanced Weather Research and Forecasting (WRF) model. We celebrated Hugh's retirement at Bulla Gastrobar at The Falls on August 19, 2025. Photographs are available here: https://photos.app.goo.gl/VjnJo7sjdvQALdVL7

Professor Xavier Comas joins the Department this semester. His research interests include the application of hydrogeophysical methods for the imaging and characterization of the critical zone, including ground-penetrating radar (GPR) (both ground and airborne based), terrain conductivity, electrical and magnetic methods, and shallow seismic. He has expertise in organic sediments with emphasis in carbon cycling and biogenic gas dynamics in peat soils, from the tropics to the Arctic; imaging of sinkholes, dissolution structures and porosity distribution in karst environments; and fracture characterization and landscape evolution in granitic bedrock. He has been a professor at FAU's Department of Geosciences since 2007.

Latest News

We are thrilled to share that our department has been recognized in the *QS World University Rankings by Subject*, placing among the top 40 (ranked 34-38) U.S. public universities for environmental sciences. This achievement is a testament to the dedication and hard work of our students, faculty, and alumni. Additionally, our Global Sustainable Tourism Program, a joint degree with the Chaplin School of Hospitality & Tourism Management, ranked fourth among public universities in the nation, further reinforcing our commitment to sustainability.

Earlier this year, FIU identified "Experience Impact" as its #1 Strategic Focus Area for the 2025-2030 Strategic Plan, highlighting environmental resilience as a core priority. This vision aligns seamlessly with our mission at E&E, driving education, research, and community outreach to address critical global challenges.

https://news.fiu.edu/2025/several-fiu-programs-rank-in-the-top-50-in-qs-world-university-

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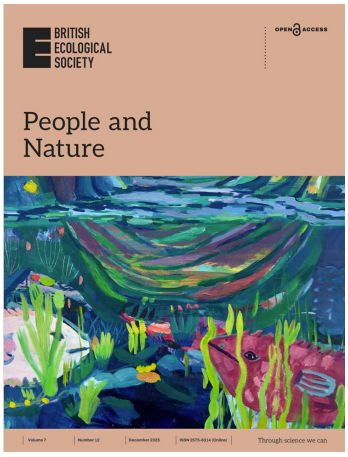
2025 Publications including Students

Congratulations to our students on their 2025 publications! Student names in **bold**.



PhD student **Lulu Victoria-Lacy's** original artwork was featured on the cover of the British Ecological Society's People and Nature journal December 2025 issue.
https://besjournals.onlinelibrary.wiley.com/doi/epdf/10.1002/pan3.10666

Victoria-Lacy, L., **Couto, T. B. A., Piland, N. C.**, Dámaso, J., **Fernandes, S.**, Athayde, S., & Anderson, E. P. (2025). Amazonian fish migration as a social–cultural–ecological process. *People and Nature, 7, 3297–3312.* ***https://doi.org/10.1002/pan3.70190***

Anderson, E.P., Encalada, A.C., **Couto, T.B.A**. *et al. A baseline for assessing the ecological integrity of Western Amazon rivers. Nature Commun Earth Environ* ***6****, 623 (2025). https://doi.org/10.1038/s43247-025-02530-8*

Jenkins, C.N., Athayde, S., **Beveridge, C.F.**, Correa, S.B., Espinoza, J.-C., Heilpern, S.A., **Herrera-R, G.A., Victoria-Lacy, L.***, Olivas, P., Oliveira, A., **Piland, N.C.**, Utsunomiya, R. and Anderson, E.P. (2025), Global importance of Amazonian freshwaters. *Frontiers in Ecology and the Environment e2868. https://doi.org/10.1002/fee.2868*

Athayde, S., Utsunomiya, R., **Victoria-Lacy, L., Beveridge, C.**, Jenkins, C. N., **Laufer, J.**, Heilpern, S., Olivas, P., & Anderson, E. P. (2025). Interdependencies between Indigenous peoples, local communities, and freshwater systems in a changing Amazon. *Conservation Biology, 39, e70034. https://doi.org/10.1111/cobi.70034*

Sue Jackson, **Natalia C. Piland**, Emma Woodward, Patricia McTaggart, Alaka Wali, Ana A. Lemos, Diana Alvira Reyes, Juliana Lins, Aloisio Cabalzar, **LuLu Victoria-Lacy**, Michael Douglas, Rebecca E. Tharme, and Elizabeth P. Anderson. 2025. Understanding temporality in the lives of rivers and riverine human communities through seasonal calendars. *Freshwater Science 44:2,239-250 https://doi.org/10.1086/735837*

Natalia C. Piland, Claire F. Beveridge, João V. Campos-Silva, Carlos Cañas, Sandra B. Correa, **Thiago B.A. Couto**, Andrea C. Encalada, Daniel Escobar-Camacho, Silvia López-Casas, Benjamin Webb, Elizabeth P. Anderson, Chapter 8 - Rivers from the Western Amazon, Editor(s): Manuel A.S. Graça, Marcos Callisto, Franco Teixeira de Mello, Douglas Rodríguez-Olarte, Rivers of South America, Elsevier, 2025, Pages 279-333, ISBN 9780128234297. https://doi.org/10.1016/B978-0-12-823429-7.00015-X.

2025 Publications including Students (Cont'd)

Eggenberger, C.W., Viadero, N., Santos, R., Papastamatiou, Y., Price, R., Strazisar, T., Madden, C. and Rehage, J., 2025. Seascape heterogeneity and predictability drive movement strategy selection in estuarine predators. *Journal of Animal Ecology.* https://besjournals.onlinelibrary.wiley.com/doi/10.1111/1365-2656.70164

Clara Riquelme and Krishnaswamy Jayachandran. July 2025. Utilizing Sargassum Seaweed as a Biofertilizer for Sustainable Agriculture: A Review. ***Journal of Agriculture Research & Technology**, Volume 29 Issue 3, DOI: 10.19080/ARTOAJ.2025.29.556448.*

Sana Awan and Krishnaswamy Jayachandran. September 2025. Role of Nanoparticles Combined with Organic Acids in Crop Production. ***Journal of Agricultural Research & Technology,** Volume 29 Issue 3, DOI: 10.19080/ARTOAJ.2025.29.5564653.*

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T Islam, EB Zeleke, M Afroz, AM Melesse, 2025. A Systematic Review of Urban Flood Susceptibility Mapping: Remote Sensing, Machine Learning, and Other Modeling Approaches, Remote Sensing 17 (3), 524

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2025 Publications including Students (Cont'd)

Halim, N., **Jiang, F., Meng, S.**, Mozumder, P., & Yao, C. (2025). Traveling for Safety: Price and Income Elasticities of Hurricane Evacuation Behavior. *Transportation Research Record, 03611981241292593.*

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Chabba, M. and M. G. Bhat. "Heat Hurts: The Influence of Heat Stress on Subjective Wellbeing of Urban Residents and Farmworkers in Florida, USA." *Environmental Challenges, Volume 21, December 2025, 10134, https://doi.org/10.1016/j.envc.2025.101343.*

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2025 Publications including Students (Cont'd)

***Graduate Student,** #Undergraduate Student,

*__Prats JW__, *__Sugino Souffront DK__, Salazar Amoretti D, Bhaskar MSB, Jayachandran, K. 2025. Development of a Controlled Environment Plant Growth Chamber Using a Shipping Container for Industrial hemp (Cannabis sativa L.) Cultivation. HortTechnology (In Press)

*__Belbase P__, Bhaskar MSB. 2025. Sustainable Cultivation of Dragon Fruit: Integrated Nutrient and Pest Management Strategies for Enhanced Productivity and Environmental Stewardship. Agronomy 15 (11), 2514; https://doi.org/10.3390/agronomy15112514

*__Kiwanuka M__, #*Leslie R, Gidudu A, Obubu JP, Melesse A, Bhaskar MSB. 2025. Evaluating Eutrophication and Water Clarity in Lake Victoria's Ugandan Coast Using Landsat Data. Sustainability 17(20), 9056; https://doi.org/10.3390/su17209056*

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*__Oyege I__, Bhaskar MSB. 2025. The Role of Vermicompost and Vermicompost Tea in Sustainable Corn Production and Fall Armyworm Suppression. Agriculture, 15(13), 1433; https://doi.org/10.3390/agriculture15131433

*__Oyege I__, Bhaskar MSB. 2025. Residual Impacts of Vermicompost-Derived Nutrients on Strawberry-Corn Rotation in South Florida. Environments, 12(5), 171. https://doi.org/10.3390/environments12050171

*__Oyege I__, *Switz A, #*Oquendo L, Prasad A, Bhaskar MSB. 2025. Green Synthesis of Neem Extract and Neem Oil-Based Azadirachtin Nanopesticides for Fall Armyworm Control and Management. Ecotoxicology and Environmental Safety, 295, 118168 https://doi.org/10.1016/j.ecoenv.2025.118168*

2025 Publications including Students (Cont'd)

Eggenberger, C. W., Viadero, N., Santos, R., Papastamatiou, Y., Price, R., Strazisar, T., et al. (2025). Seascape heterogeneity and predictability drive movement strategy selection in estuarine predators. *Journal of Animal Ecology, 94(12), 2671–2686.* https://doi.org/10.1111/1365-2656.70164

Massie, J. A., Rezek, R. J., James, W. R., Santos, R. O., Viadero, N. M., Boucek, R. E., & Rehage, J. S. (2025). Linking a seasonal freshwater prey subsidy to the body condition of an estuarine consumer in a subtropical coastal river. *Scientific Reports, 15(1), 41217.* https://doi.org/10.1038/s41598-025-25211-0

Massie, J. A., Rezek, R. J., Santos, R. O., James, W. R., Viadero, N. M., Boucek, R. E., & Rehage, J. S. (2025). Long-term patterns in the relative abundance of Common Snook as a factor of shifting environmental conditions in the Florida coastal Everglades. *Marine and Coastal Fisheries, 17(5), vtaf026.* https://doi.org/10.1093/mcfafs/vtaf026

Viadero, N. M., Massie, J. A., Eggenberger, C. W., James, W. R., Boucek, R. E., Rezek, R. J., et al. (2025). Between a Dry Marsh and a Salty Place: Estuarine Habitat Suitability for a Freshwater Fish (Florida Bass) and Implications for Ecosystem Restoration and Climate Change. *Estuaries and Coasts, 48(5), 124.* https://doi.org/10.1007/s12237-025-01561-w

White, M., James, W. R., Lesser, J. S., Rezek, R. J., Rodemann, J. R., Boucek, R. E., et al. (2025). Linking hydrology, temperature, and energetics: Global change implications for the foraging ecology of a generalist predator. *Marine and Coastal Fisheries, 17(5), vtaf031.* https://doi.org/10.1093/mcfafs/vtaf031

Seminar

The Department's robust seminar program was led by **Hong Liu** this Spring semester. Check out the talks and join us at 3:30 on Friday afternoons when you can. You can see prior semester seminars on our *YouTube Channel*; please join the channel.

Date	Name	Institution	Subject	Presentation Title
Sept 5	Dr. Laura Guertin, Distinguished Professor of Earth Sciences	Penn State Brandywine	Ocean Discovery	Stories of Communicating Scientific Ocean Drilling, from Text to Textiles

Learn about the history of the Earth and Environment Department by watching this presentation by Dr. Florentin Maurrasse and Dr. Joel Henin.

Seminar (Cont'd)

Date	Name	Institution	Subject	Presentation Title
Sept 12	Drs. María José Sanín, Palm Biologist	Montgomery Botanical Center	Biodiversity conservation	Integrative studies in Palms: lessons about the past and future of biodiversity
Sept 19	Dr. Xingbo Wu, Assistant Professor of Tropical Plant Breeding and Genetics	UF TREC	Tropical horticulture and genomics	Advancing the Tropical Horticulture Industry with Genomic and Breeding Innovations
Sept 26	Dr. Jason Downing, Director of Research	Fairchild Tropical Botanic Garden	Orchid conservation	The Million Orchid Project: A non-traditional conservation strategy
Oct. 3	Dr. Shimon Wdowinski, Professor	FIU Department of Earth and Environment	Earthquakes	Climate Control on Earthquake Clustering along Continental Transform Faults: Evidence from the 220,000-Year Paleoseismic Record of the Dead Sea Basin.
Oct 10	Dr. Mysha Clarke, Assistant Professor	Assistant Professor, UF/IFAS School of Forest, Fisheries and Geomatics Sciences	Urban Forestry	People, Forests, and Storms: Exploring the Human Dimensions of Climate Resilience
Oct 17	Dr. Brian Sodoti	National Botanic Garden	Botany	From Canopies to Classrooms: Protecting Florida's Airplants
Oct 31	Dr. Jun Zhang, Scientist	NOAA/AOML/Hurricane Research Division & University of Miami/CIMAS	Hurricane research	Improving Model Physics and Hurricane Forecasting using Aircraft Observations

Seminar (Cont'd)

Date	Name	Institution	Subject	Presentation Title
Nov 7	Dr. Florentin Maurrasse, Professor	FIU Department of Earth and Environment	Geology	Ocean Anoxic Events (OAEs): Their importance and relevance to the present
Nov 14	Dr. Bernd Süssmuth, Full Professor of Economics and Econometrics	Leipzig University	Environmental economics	Super-Cycles, Global Nutrition, and Climate Change
Nov 21	Dr. Gunter Fisher, Senior Vice President Science & Conservation	Missouri Botanical Garden	Ecological restoration	The importance of functional diversity in ecological restoration
Dec 5	Dr. Romina Gazis, Associate Professor & Extension Specialist, Director, Plant Diagnostic Clinic,	Department of Plant Pathology IFAS University of Florida Tropical Research and Education Center	Plant pathology	Building a Hub for Tropical Plant Health: Advancing Diagnostics and Management of Emerging Disease.

Spring and Summer BS, BA, Minors and Certificate Graduations

Congratulations to all!

See our Alumni Notes for news from other alumni.

Name	Degree		Name	Degree
Rossana Garcia	BS-Environmental Studies		Natalie Valdes	BS-Environmental Studies
Armando Porto	BS-Environmental Studies		Camila Caceres	BS-Environmental Studies

Spring and Summer BS, BA, Minors and Certificate Graduations

Congratulations to all!

See our Alumni Notes for news from other alumni.

Name	Degree		Name	Degree
Angelina Mendez	BS-Environmental Studies		Cye Cogle	BS-Environmental Studies
Divana Bynoe	BS-Environmental Studies		Brandon Leon	BS-Environmental Studies
Zaira Nieves	BS-Environmental Studies		Jocelyn Polo	BS-Environmental Studies
Sarah Tillem	BS-Environmental Studies		Daniel Vieira Gon-calves	BS-Environmental Studies
Natasha Kim	BS-Environmental Studies		Alyssa Frye	BS-Environmental Studies
Aisleen Turner	BS-Environmental Studies		Dominic Mellone	BS-Environmental Studies
Gabriel Pesantes	BS-Environmental Studies		Melody Carrion Nunez	BS-Environmental Studies
MeKayla Garber	BS-Environmental Studies		Nicole Marquez	BS-Environmental Studies
Maria Ordoñez Guarneros	BS-Environmental Studies		Katelyn Garcia	BS-Geosciences
Maria Del Sol Jaime Rosado	BS-Geosciences		Tyler Peterson	BS-Geosciences
Christian Wensing	BS-Geosciences		Sean Mccormick	BS-Geosciences
Danny Larochelle	BS-Geosciences		Rafael Carbonell	BS-Geosciences
Emmanuel Rivera	BS-Geosciences		Lauren Lauchman	BS-Geosciences

Spring and Summer BS, BA, Minors and Certificate Graduations

Congratulations to all!

See our Alumni Notes for news from other alumni.

Name	Degree		Name	Degree
Sandra Dominguez-Cotelo	BS-Geosciences		Suzanne Carlucci	BA-Sustain and the Environ
Alaina Sylve	BA-Sustain and the Environ		Caitlin Mccormick	BA-Sustain and the Environ
Brandon Scott	BA-Sustain and the Environ		Yailyne Lopez	BA-Sustain and the Environ
Vanessa Arrieta	BA-Sustain and the Environ		Jessica Mendez	BA-Sustain and the Environ
Robert Anglin	BA-Sustain and the Environ		Giorgio Fernandez	BA-Sustain and the Environ
Gabriella Ramos	BA-Sustain and the Environ		Christopher Myers	BA-Sustain and the Environ
Alexandria Geban	BA-Sustain and the Environ		Celeste Dominguez	BA-Sustain and the Environ
Rossana Garcia	Cert Agroecology		Sophie Ramos	Cert Agroecology
Natalie Valdes	Cert Agroecology		Alyssa Frye	Cert Agroecology
Camila Caceres	Cert Biodiversity Conserv Mgmt			

We are always looking for new content that highlights the department's achievements. Want to contribute to future volumes? If you have any contributions or suggestions, then contact me (Rodolfo Rego) at rrego@fiu.edu. Thank you!