Carlos E. Ramos Scharrón, PhD

Department of Geography & the Environment
Lozano Long Institute of Latin American Studies
The University of Texas at Austin

EDUCATION

Ph.D., Watershed Sciences, Department of Earth Resources, Colorado State University, Fort Collins, Colorado — 2004

B.S., Department of Geology, Universidad de Puerto Rico, Mayaguez, Puerto Rico — 1993

PROFESSIONAL APPOINTMENTS

Associate Professor, Department of Geography & the Environment and Lozano Long Institute of Latin American Studies, The University of Texas at Austin — 2019 - present

Assistant Professor, Department of Geography & the Environment and Lozano Long Institute of Latin American Studies, The University of Texas at Austin — 2013 – 2019

Faculty Affiliate, Environmental Sciences Institute — 2013 – present
Courtesy Appointment, Department of History — 2017 – present

Director of Student Programs, Lozano Long Institute of Latin American Studies, The University of Texas at Austin — 2020 - present

Adjunct Professor, Department of Environmental Sciences, Universidad de Puerto Rico, Río Piedras, Puerto Rico — 2017 - present

Lecturer, Department of Geography & the Environment, The University of Texas at Austin — 2012 – 2013

Post-doctoral researcher, Department of Biology, Universidad de Puerto Rico, Río Piedras, Puerto Rico — 2006 – 2008

Watershed Program Coordinator, Island Resources Foundation, Washington DC — 2000 - 2013

PUBLICATIONS

Peer-Reviewed Journal Articles

1. **Ramos-Scharrón, C.E**. In press. Impacts of off-road vehicle tracks on runoff, erosion, and sediment delivery – A combined field and modeling approach. *Environmental Modelling & Software*. https://doi.org/10.1016/j.envsoft.2020.104957

2. **Ramos-Scharrón, C.E.**, Arima E., Hughes S. 2020. Magnitude and spatial distribution of shallow landslides induced by Hurricane María in Puerto Rico. *Physical Geography*. https://doi.org/10.1080/02723646.2020.1801121

3. **Ramos-Scharrón, C.E.**, Arima, E. 2019. Hurricane María's precipitation signature in Puerto Rico, a conceivable presage of rains to come. *Scientific Reports* 9: 15612. https://doi.org/10.1038/s41598-019-52198-2

4. Browning, T.N., Sawyer D.E., Brooks, G.R., Larson, R.A., **Ramos-Scharrón, C.E.**, 2019. Widespread deposition in a coastal bay following three major hurricane events. *Scientific Reports 9: 7101*. https://doi.org/10.1038/s41598-019-43062-4.

5. **Ramos-Scharrón, C.E.** & LaFevor, M. 2018. Effects of forest roads on runoff initiation in low order ephemeral streams. *Water Resources Research*. 54(11): 8613-8631. https://doi.org/10.1029/2018WR023442.

6. **Ramos-Scharrón, C.E.** (2018). Land disturbance effects of roads in runoff and sediment production on dry-tropical settings. *Geoderma, 310: 107-119*. http://dx.doi.org/10.1016/j.geoderma.2017.08.035.

7. **Ramos-Scharrón, C.E.** & Figueroa-Sánchez, Y. (2017). Plot-, farm-, and watershed-scale effects of coffee cultivation in runoff and sediment production in western Puerto Rico. *Journal of Environmental Management, 202: 126-136*. https://doi.org/10.1016/j.jenvman.2017.07.020.

8. **Ramos-Scharrón, C.E.** & Thomaz, E.L. (2017). Runoff development and soil erosion in a wet tropical montane setting under coffee cultivation. *Land Degradation & Development, 28: 936-945*. https://doi.org/10.1002/ldr.2567

9. **Ramos-Scharrón, C.E.** & LaFevor, M. (2016). The role of unpaved roads as active source areas of precipitation excess in small watersheds drained by ephemeral streams in the Northeastern Caribbean. *Journal of Hydrology, 533: 168-179*. https://doi.org/10.1016/j.jhydrol.2015.11.051

10. Thomaz, E.L. & **Ramos-Scharrón, C.E.** (2015). Rill length and plot-scale effects on the hydrogemorphologic response of gravelly roadbeds. *Earth Surface Processes and Landforms, 40(15): 2041-2048*. https://doi.org/10.1002/esp.3778

11. **Ramos-Scharrón, C.E.,** Torres-Pulliza, D. & Hernández-Delgado, E.A. (2015). Watershed- and island wide-scale land cover changes in Puerto Rico (1930s-2004) and their potential effects on coral reef ecosystems. *Science of the Total Environment, 506-507: 241-251*. https://doi.org/10.1016/j.scitotenv.2014.11.016

12. **Ramos-Scharrón, C.E.,** Reale-Munroe, K. & Atkinson, S.C. (2014). Quantification and modeling of foot trail surface erosion in a dry sub-tropical setting. *Earth Surface Processes and Landforms, 39(13): 1764-1777*. https://doi.org/10.1002/esp.3558

13. Bégin, C., Brooks, G., Larson, R.A., Dragcevic, S., **Ramos-Scharrón, C.E.** & Côte, I.M. (2014). Increase in sediment loads over coral reefs in Saint Lucia in relation to land use change in contributing watersheds. *Ocean & Coastal Management, 95: 35-45*. https://doi.org/10.1016/j.ocecoaman.2014.03.018

14. Thomaz, E.L., Vestena, L.R. & **Ramos-Scharrón, C.E.** (2014). The effects of unpaved roads on suspended sediment concentration at varying spatial scales – a case study from Southern Brazil. *Water and Environment Journal, 28: 547-555*. https://doi.org/10.1111/wej.12070

15. **Ramos-Scharrón, C.E.,** Castellanos, E.J. & Restrepo, C. (2012). The transfer of modern organic carbon by landslide activity in tropical montane ecosystems. *Journal of Geophysical Research-Biogeosciences, 117: G03016, 1-18.* https://doi.org/10.1029/2011JG001838

16. **Ramos-Scharrón, C.E.** (2012). Effectiveness of drainage improvements in reducing sediment production rates from an unpaved road. *Journal of Soil and Water Conservation 67(2): 87-100*. doi: 10.2489/jswc.67.2.87

17. **Ramos-Scharrón, C.E.** (2010). Sediment production from unpaved roads in a sub-tropical dry setting - Southwestern Puerto Rico. *Catena* 82(3): 146-158. https://doi.org/10.1016/j.catena.2010.06.001

18. Fu, B., Newham, L.T.H. & **Ramos-Scharrón, C.E.** (2010). A review of surface erosion and sediment delivery models for unsealed roads. *Environmental Modelling & Software 25: 1-14*. https://doi.org/10.1016/j.envsoft.2009.07.013

19. Restrepo, C., Walker, L.R., Shiels, A.B., Bussman, R., Claessens, L., Fisch, S., Lozano, P., Negi, G., Paolini, L., Poveda, G., **Ramos-Scharrón, C.E.,** Richter, M., & Velázquez, E. (2009). Landsliding and its multiscale influence on mountainscapes. *BioScience 59(8): 685-698*. https://doi.org/10.1525/bio.2009.59.8.10

20. **Ramos-Scharrón, C.E.** & MacDonald, L.H. (2007). Measurement and prediction of natural and anthropogenic sediment sources in St. John, U.S. Virgin Islands. *Catena, 71: 250-266*. https://doi.org/10.1016/j.catena.2007.03.009

21. **Ramos-Scharrón, C.E.** & MacDonald, L.H. (2007). Development and application of a GIS-based sediment budget model. *Journal of Environmental Management, 84: 157-172*. https://doi.org/10.1016/j.jenvman.2006.05.019

22. **Ramos-Scharrón, C.E.** & MacDonald, L.H. (2007). Runoff and suspended sediment yields from an unpaved road segment, St. John, U.S. Virgin Islands. *Hydrological Processes, 21(1): 35-50*. https://doi.org/10.1002/hyp.6175

23. **Ramos-Scharrón, C.E.,** & MacDonald, L.H. (2005). Measurement and prediction of sediment production from unpaved roads, St. John, U.S. Virgin Islands. *Earth Surface Processes and Landforms, 30(10): 1283-1304*. https://doi.org/10.1002/esp.1201

Peer-Reviewed Book Chapters

24. Hernández-Delgado, E.A., **Ramos-Scharrón, C.E.,** Guerrero-Pérez, C.R., Lucking, M.A., Laureano, R., Méndez-Lázaro, P.A., & Meléndez-Díaz, J.O. (2012). Long-term Impacts of Non-Sustainable Tourism and Urban Development in Small Tropical Islands Coastal Habitats in a Changing Climate: Lessons Learned from Puerto Rico. In M. Kasimoglu (Ed.), *Visions for Global Tourism Industry-Creating and Sustaining Competitive Strategies* (357-398). London, United Kingdom: InTech Publications.

25. **Ramos-Scharrón, C.E.,** Amador-Gutierrez, J.M. & Hernández-Delgado, E. (2012). An Interdisciplinary Erosion Mitigation Approach for Coral Reef Protection - A Case Study from the Eastern Caribbean. In A. Cruzado (Ed.), *Marine Ecosystems* (127-160). London, United Kingdom: InTech Publications.

26. Benavides-Solorio, J. de D. & **Ramos-Scharrón, C.E.** (2007). The Effects of Forest Fires and Roads on Hydrologic and Surface Erosion Processes of Forested Watersheds. In C. Sánchez-Brito, M Bravo-Espinosa, L.E. Fregoso-Tirado, & F.O. Rulfo Vilchis (Ed.), *Integrated Watershed Management (333-386).* Michoacán, México: Centro de Investigación Regional Pacífico Centro. (In Spanish) *Avances de Investigación en Agricultura Sostenible IV: Bases Metodológicas Para el Manejo Integral de Cuencas Hidrológicas* (333-386). Michoacán, México: Centro de Investigación Regional Pacífico Centro

Articles in Peer-Reviewed Conference Proceedings

27. **Ramos-Scharrón, C.E.** (2007). Sediment production from natural and disturbed surfaces in dry tropical areas of La Parguera-PR, 2003-2005. In S. Hwang (Ed.), Proceedings from the Seventh Caribbean Island Water Resources Congress (26-30). St. Croix, U.S. Virgin Islands: University of the Virgin Islands Water Resources Research Institute.

Non-Peer Reviewed Articles & Editorials

28. **Ramos-Scharrón, C.E.** & others. (2020). Fracking: no es la causa de la alta sismicidad en el suroeste. 80 Grados Online Magazine (link).

29. **Ramos-Scharrón, C.E.** (2016). Where History, Science, and Coral Reef Conservation Meet: A Case Study from St. John, U.S. Virgin Islands. *Portal Annual Review,* 2015-16: 6-9.

30. **Ramos-Scharrón, C.E.,** Rogers, C., Hernandez-Delgado, E.A., Restrepo, J., Botero, F., Coldren, S., Garza-Perez, J.R., Sanchez-Navarro, P., Dokken, Q., Ferguson, R., Koss, J., Martindale, R., Vandiver, L., Viqueira-Rios, R.A. (2016). Caribbean Coral Reefs at Risk: Improved Decision Making Through Better Science and Communication. *Reef Encounter: The New Journal of the International Society for Reef Studies*, 31(1): 61-67.

31. **Ramos-Scharrón C.E.** (2013). Hydro-geomorphology as a central theme in environmental studies (Editorial). *Revista Ambiência,* 9(2): 1-2.

32. **Ramos-Scharrón C.E.** (2007). Case Study: Maho Bay Watershed Road Erosion Reduction Project, St. John, US Virgin Islands. *Environmental Connection* 1(1): 18-20.

Unpublished Reports

Toline C.A & others. (in review). Post-hurricane restoration plan for National Parks in the Caribbean. National Park Service.

Ramos-Scharrón, C.E., Figueroa-Sánchez, Y., & Alicea-Díaz, E.E. (2020). Implementation of sediment and erosion control practices in the Guánica Watershed to benefit coral reefs – Scientific Monitoring Component. Submitted to National Fish and Wildlife Foundation on behalf of Protectores de Cuencas Inc. for project NFWF-032-17-056242. 8 p.

Barreto-Orta, M. & others**.** (2019). Human impacts to coastal ecosystems in Puerto Rico (HICE-PR): A remote sensing, hydrologic, ecologic, and socio-economic assessment with management implications. Submitted to NASA (Award Number, NNX 14AJ23G). 21 p.

Ramos-Scharrón, C.E. (2018). Assessment of runoff, erosion and effectiveness of an erosion control program for off-road vehicle trails at Los Pozos, Cabo Rojo, Puerto Rico. Submitted to Protectores de Cuencas Inc. and the National Fish and Wildlife Foundation. 27 p.

Ramos-Scharrón, C.E. & Torres-Pulliza, D. (2018). Assessment of terrestrial sediment inputs and marine habitat conditions from Laguna Joyuda to Punta Guaniquilla, Cabo Rojo, Puerto Rico – Land cover change and watershed modeling component. Submitted to Sociedad de Ambiente Marino, San Juan, Puerto Rico. 31 p.

Gray, S.C. & **Ramos-Scharrón, C.E.** (2018). Watershed-marine linkages and the impact of watershed restoration on land-based sedimentation to USVI coral reefs". Final Report to NOAA-Fisheries Habitat Conservation Program Office for award NA12NMF4630189, 68 p.

Ramos-Scharrón, C.E., Gilbes, F., Torres-Pulliza, D., Rodríguez-Guzmán, V. & Aceituno, J. (2014). Application of the Soil and Water Assessment Tool (SWAT) to estimate discharge and sediment yields from the Río Grande de Añasco Watershed, Puerto Rico. Final Project Report to UPR-Sea Grant.

Ramos-Scharrón, C.E., Reale-Munroe, K., Swanson, B., Atkinson, S. & Devine, B. (2012). USVI Coastal Habitat Restoration through Watershed Stabilization Project, NOAA-ARRA, 2009-2012, Terrestrial Monitoring Component. Unpublished Report to NOAA-Coral Reef Protection Program. 242 p.

Reale-Munroe, K., Castillo, B. II, & **Ramos-Scharrón, C.E.** (2011). Measurement of particulate organic material and erosion rates in small subtropical watersheds on the East End of St. Croix, U.S. Virgin Islands. Report to the Water Resources Research Institute, University of the Virgin Islands, Project No. 2010VI-170B, 34 p.

Ramos-Scharrón, C.E., Amador, J., Colón-López, J. (2012). Guidelines for the development of an erosion control program to reduce sediment-loading rates from the unpaved road network in the island of Culebra-Puerto Rico. Coastal Zone Management Program, PR-Department of Natural and Environmental Resources.

Ramos-Scharrón, C.E. (2009). The effects of land development on sediment loading rates into the coastal waters of the islands of Culebra and Vieques. Submitted to the Coastal Zone Management Program, PR Dept. of Natural and Environmental Resources. 94 p.

Ramos-Scharrón, C.E. (2009). Qualitative assessment of sediment sources and guidelines for the design of a runoff and sediment yield monitoring strategy for the Body Ponds watershed, Antigua. Submitted to Environment-Tourism Consulting, St. John's, Antigua. 38 p.

Ramos-Scharrón, C.E., Lindsay, K. & Bacle, J.P. (2009). Erosion control strategy for the Fish Bay watershed. Final report submitted to the US Fish and Wildlife, Caribbean Region. 32 p.

Ramos-Scharrón, C.E., Lindsay, K, Bacle, J.P. (2007). Fish Bay Watershed assessment-Recommendations for an erosion control program. Submitted to the Gulf of Mexico Foundation and the National Fish & Wildlife Foundation.

Ramos-Scharrón, C.E. (2006). Effectiveness of an erosion control method in reducing sediment production rates from an unpaved road- Maho Bay Watershed Erosion Reduction Project, St. John, USVI. Final Report to the U.S. Virgin Islands Department of Planning and Natural Resources, 15 June 2006, 48 p.

Works in Progress

Peer-Reviewed Journal Articles

Ramos-Scharrón, C.E., Arima, E.Y., Guidry, A., Ruffe, D. Vest, B. In review. Sediment releases from hurricane-driven landsliding in an actively cultivated subtropical landscape. *Journal of Geophysical Research – Earth Surface* submitted December 2020 [2020JF006054].

Alicea-Díaz, E., Figueroa-Sánchez, Y.A., Viqueira-Ríos, R., **Ramos-Scharrón, C.E.** In review. Road cutslope erosion – Magnitude, controlling factors, and effectiveness of an erosion control strategy in an actively-cultivated tropical montane setting. Submitted to *Applied Geography*, submitted November 2020 [JAPG_2020_1362].

Ramos-Scharrón, C.E., Garnett, C., & Arima, Y. In preparation. 50% complete. Propensity of high-standing islands to worldwide peak flow records – The case of Puerto Rico. Expecting to submit Spring 2021 to *Hydrology, Special Issue on 'Hydrology in the Caribbean Basin'* [Invited paper].

Extended Abstracts & Other

Ramos-Scharrón, C.E. & others. 2020. El 'fracking' no es la causa de la alta sismicidad en el suoreste de Puerto Rico (diciembre 2019 – enero 2020) [press release; link]

MacDonald, L.H., Sosa-Pérez, G., **Ramos-Scharrón, C.E.** 2019. Sediment production and delivery from unpaved roads: A little-recognized but significant sediment source. Federal Interagency Sedimentation and Hydrologic Modeling Conference Proceedings.

RESEARCH GRANTS

Active External Research Grants

LaFevor, M.C., Ramos-Scharrón, C.E., Romero-López, L. 2020. "Assessment and design of large-scale water conservation in natural protected areas of México." National Geographic Society Exploration Grant ($30K awarded through the Univ. of Alabama, Co-PI).

Ramos-Scharrón, C.E. (co-PI), "Assess natural resource impacts and determine restoration actions at affected Caribbean Parks", National Park Service. Award total: $42,890; UT OSP #: 202001043-001.

Ramos-Scharrón, C.E. (PI). "Continued implementation of NOAA's Habitat Blueprint focus area priority actions in Culebra Island to restore coral reef critical habitat". Community-based Restoration Program, National Oceanic and Atmospheric Administration (NOAA). Submitted April 2019. Award total: TBD; Total research funds: TBD. Managed by Protectores de Cuencas Inc. (PENDING).

Ramos-Scharrón, C.E. (PI). "Evaluation of best management practices for erosion control in Guánica Bay Watershed (PR)". National Fish and Wildlife Foundation (NFWF) Coral Reef Conservation Fund. Awarded. 2019-2020. Award total: $149K; Total research funds: $49K. Managed by Protectores de Cuencas Inc. Grant/Agreement No. 032.18.060749.

Ramos-Scharrón, C.E. (PI). "Implement sediment and erosion control practices in Guánica Watershed to benefit coral reefs (PR)". National Fish and Wildlife Foundation (NFWF). Awarded. 2018-2020. Award total: $148K; Total research funds: $20K; Managed by Protectores de Cuencas Inc. Grant/Agreement No. 032.17.056242.

Ramos-Scharrón, C.E. (PI). "Expanding efforts on building resiliency in the Puerto Rico Northeast Reserves by addressing land-based sources of pollution (LBSPs) and restoring coral reef habitat". National Oceanic and Atmospheric Administration (NOAA)- Coral Reef Conservation Program. Awarded. 2017-2020. Award total: $218K; Total research funds: $54K; Managed by Protectores de Cuencas Inc. Grant/Agreement No. NA17NMF4630295.

Concluded External Research Grants

Ramos-Scharrón, C.E. (co-PI). "Assessment of the impact of watershed development and restoration on marine sediment dynamics, St. John, USVI". University of Puerto Rico, Sea Grant College Program. Awarded. 2016-2019. Award total: $74K; Total research funds: $6K. Managed by the University of San Diego. Grant/Agreement No. 150136-U2016-010.

Ramos-Scharrón, C.E. (co-PI). "Human impacts to coastal ecosystems in Puerto Rico (HICE-PR): A 70-year remote sensing, hydrologic, ecologic, and socio-economic assessment with management implications". National Aeronautics and Space Administration- Interdisciplinary Research in Earth Science. Awarded. 2013-2019. Award total: $1.06M; Total research funds: $87K. Managed by the University of Puerto Rico-Río Piedras. Grant/Agreement No. 12-IDS12-0062.

Ramos-Scharrón, C.E. (PI). "Effectiveness of erosion mitigation practices for off-road vehicle usage in Los Pozos, Cabo Rojo, Puerto Rico". NFWF. Awarded. 2017-2018. Award total: $80K; Total research funds: $8K research funds. Managed by Protectores de Cuencas Inc. Grant/Agreement No. 0302.16.053108.

Ramos-Scharrón, C.E. (PI). "Building resiliency in Puerto Rico's Northeast Reserves by addressing land-based sources of pollution, Restoring Coral Reef Habitat". NOAA-National Marine Fisheries Service, Habitat Blueprint- Coastal and Marine Habitat Focus Area Grants. Awarded. 2015-2018. Award total: $227K; Total research funds: $30K. Managed by Protectores de Cuencas Inc. Grant/Agreement No. NA15NMF4630249.

Ramos-Scharrón, C.E. (co-PI). "Comparative monitoring approaches to assess the impact of watershed restoration on marine sediment dynamics, USVI". NOAA-Coral Reef Conservation Program. Awarded. 2015-2018. Award total: $156K; Total research funds: $79K. Managed by the University of San Diego.

Ramos-Scharrón, C.E. (co-PI). "Watershed restoration impacts on reef sedimentation". NFWF. Awarded. 2013-2015. Award total: $18K Total research funds: $8K. Managed by the University of San Diego. Grant/Agreement No. 0302.13.039345.

Ramos-Scharrón, C.E. (co-PI). "Watershed-marine linkages and the impact of watershed restoration on land-based sedimentation to USVI coral reefs". NOAA-Coral Reef Conservation Grant. Awarded. 2013-2015. Award total: $167K; Total research funds: $83K. Managed by the University of San Diego. Grant/Agreement No. NA13NMF4630189.

Ramos-Scharrón, C.E. (co-PI). "Terrestrial sediment delivery and nearshore water turbidity- A case study from the East End of St. Croix, USVI." University of the Virgin Islands Water Resources Research Institute. Awarded. 2012-2014. Award total: $21K; Total research funds: $21K. Managed by the University of the Virgin Islands-St. Croix. Grant/Agreement No. 2010VI220B.

Ramos-Scharrón, C.E. (co-PI). "Quantifying sediment and organic material production rates from surface erosion processes and the effect on marine water quality in small subtropical watersheds on the East End of St. Croix, USVI." University of the Virgin Islands-Water Resources Research Institute. Awarded.

2011-2012. Award total: $12K; Total research funds: $12K. Managed by the University of the Virgin Islands-St. Croix. Grant/Agreement No. 2011VI195B.

Ramos-Scharrón, C.E. (co-PI). "Application of the Soil and Water Assessment Tool (SWAT) to estimate discharge and sediment yields from the Río Grande de Añasco Watershed, Puerto Rico". University of Puerto Rico Sea Grant College Research Program. Awarded. 2011-2014. Award total: $168K; Total research funds: $166K. Managed by the Island Resources Foundation. Grant/Agreement No. 2009-2010-010.

Ramos-Scharrón, C.E. (PI). "Assessment of sediment inputs and marine habitat conditions from Laguna Joyuda to Punta Guaniquilla, Cabo Rojo, Puerto Rico". Puerto Rico Department of Natural and Environmental Resources- Coral Reef Conservation and Management Program. Awarded. 2011-2014. Award total: $25K; Total research funds: $25K. Managed by Sociedad de Ambiente Marino. Grant/Agreement No. NA09NOS4190056.

Ramos-Scharrón, C.E. (co-PI). "Coastal and marine habitat restoration through watershed stabilization-US Virgin Islands". NOAA-Coastal and Marine Habitat Restoration Grants, American Recovery and Reinvestment Act. Awarded. 2009-2011. Award total: $2.7M; Total research funds: $250K. Managed by the Virgin Islands Resources Conservation & Development Council Inc. Grant/Agreement No. NPS01100.

Ramos-Scharrón, C.E. (PI). "Development and application of an erosion control program to reduce sediment loading rates from land-based sources to the coral reefs of Culebra-Puerto Rico". Puerto Rico Department of Natural and Environmental Resources-Coastal Zone Management Division. Awarded. 2010-2011. Total award: $45K; Total research funds: $45K. Personal contract.

Ramos-Scharrón, C.E. (co-PI). "Quantifying sediment and organic material production rates from surface erosion processes and the effect on marine water quality in small tropical watersheds on the East End of St. Croix, USVI". University of the Virgin Islands-Water Resources Research Institute. Awarded. 2010-2011. Award total: $19K; Total research funds: $19K. Managed by the University of the Virgin Islands-St. Croix. Grant/Agreement No. 2010VI170B.

Ramos-Scharrón, C.E. (PI). "Long-term land use dynamics and erosion processes on the Río Fajardo watershed and its effects on coral reef communities". University of Puerto Rico-Caribbean Coral Reef Institute. Awarded. 2009-2011. Award total: $125K; Total research funds: $125K. Managed by the Island Resources Foundation. Grant/Agreement No. NA09NOS4260243.

Ramos-Scharrón, C.E. (PI). "The effects of land development on sediment loading rates into the coastal waters of the islands of Culebra and Vieques, Puerto Rico". Puerto Rico Department of Natural and Environmental Resources-Coastal Zone Management Division. Awarded. 2008-2009. Award total: $40K; Total research funds: $40K. Personal contract.

Ramos-Scharrón, C.E. (PI). "Development and application of an erosion control strategy for the Fish Bay watershed, St. John, USVI". US Fish & Wildlife Service. Awarded. 2007-2009. Award total: $10K; Total research funds: $10K. Managed by the Island Resources Foundation.

Ramos-Scharrón, C.E. (PI). "The effects of land development on sediment loading rates into the coastal waters of Culebra, Puerto Rico". University of Puerto Rico Sea Grant College Seed-Money Program. Awarded. 2006-2008. Award total: $3.5K; Total research funds: $3.5K. Personal contract.

Ramos-Scharrón, C.E. (PI). "The Fish Bay erosion control project". NFWF- Coral Reef Conservation Fund. Awarded. 2006-2008. Award total: $45K; Total research funds: $12K. Managed by the Island Resources Foundation. Grant/Agreement No. 0302.06.005340.

Ramos-Scharrón, C.E. (PI). "Development and application of an erosion control strategy for the Fish Bay Watershed". The Gulf of Mexico Foundation. Awarded. 2006-2008. Award total: $26K; Total research funds: $8K. Managed by the Island Resources Foundation. Grant/Agreement No. 1003C.

Ramos-Scharrón, C.E. (PI). "Development of software applications for assessing the effects of land development on sediment production and sediment yields". University of Puerto Rico-Caribbean Coral Reef Institute. Awarded. 2006-2008. Award total: $77K; Total research funds: $77K. Managed by the Island Resources Foundation. Grant/Agreement No. NA07NOS4000192.

Ramos-Scharrón, C.E. (co-PI). "Terrestrial sediment budget-La Parguera, Puerto Rico". NOAA-Coral Reef Environmental Studies Program. Awarded. 2003-2005. Award total: $4M; Total research funds: $143K. Managed by the Island Resources Foundation.

Ramos-Scharrón, C.E. (PI). "Maho Bay & John Head roads rehabilitation project". Virgin Island Department of Planning and Natural Resources-EPA 319(h) Non-Point Sources of Pollution Grant Program. Awarded. 2002-2005. Award total: $104K; Total research funds: $104K. Managed by Maho Bay EcoResort.

Ramos-Scharrón, C.E. (PI). "Development of decision tools for non-point source management in St. John, USVI". Virgin Island Department of Planning and Natural Resources-EPA 319(h) Non-Point Sources of Pollution Grant Program. Awarded. 2002-2005. Award total: $43K; Total research funds: $43K. Managed by Island Resources Foundation.

Ramos-Scharrón, C.E. (collaborator). "Delivery, deposition, and effects of land development on corals in St. John, U.S. Virgin Islands". University of the Virgin Islands-Water Resources Research Institute. Awarded. 1999-2001. Award total: $30K; Total research funds: $30K. Managed by the University of the Virgin Islands-Marine Sciences.

Ramos-Scharrón, C.E. (PI). "Development of ambient monitoring strategies". Northwest Indian Fisheries Commission. Awarded. 1996-1998. Award total: $48K; Total research funds: $48K. Personal contract.

Submitted external research proposals

LaFevor, M.C. & Ramos-Scharrón, C.E. 2020. "Water-harvesting earthworks in mountain protected areas: Assessing spatial structure, function, and management strategies". National Science Foundation, Human-Environment and Geographical Sciences Program ($456K total; $139K UT-Austin; co-PI; to be submitted January 2021).

University of Texas Internal Proposals

"Climate change driven effects on the water resources of Puerto Rico". LLILAS-Mellon Faculty Research Grants, Summer 2020 [$5K awarded].

"Prof. Manuel Valdés Pizzini, Universidad de Puerto Rico at Mayagüez". LLILAS-Benson Visiting Resource Professor Program. 2018-2019. In collaboration with Professor Megan Raby, Department of History [awarded]

"Prof. Sharlene Mollett, University of Toronto". LLILAS-Benson Visiting Resource Professor Program. 2017-18. In collaboration with Professors Caroline Faria and Rebecca Torres, Department of Geography & the Environment [concluded]

Graduate School Mentoring Fellowship, Office of the Senior Vice Provost and Dean of Graduate Studies. 2017. [awarded]

"Land use change and its implications on sediment yields into coral-bearing waters of the Northeastern Caribbean". Office of the Vice President for Research, Special Research Grant. 2017. Total research award: $750. [concluded]

"Soil erosion and water quality degradation resulting from coffee farming in Puerto Rico". LLILAS-Benson, UT-Austin, Mellon Faculty Research Grants. 2016. Total research award: $1.8K. [concluded]

"Quantification of environmental stresses related to coffee cultivation in Puerto Rico". Office of the Vice President for Research, Special Research Grant. 2016. Total research award: $750. [concluded]

"Coral reefs in the circum-Caribbean Region network. Mexican Center Faculty Proposals, LLILAS-Benson. 2015. Total funds requested: $1K, awarded. [concluded]

"Professor Juan Restrepo, EAFIT, Colombia". LLILAS Visiting Resource Professor Program. 2014. [concluded]

"Current watershed management issues in Brazil Symposium". Brazil Center-LLILAS. 2014. Total funds awarded: $1K. [concluded]

"Environmental Studies in the Caribbean". LLILAS-Benson Interdisciplinary Environmental Studies Initiative. 2014-2016. Total funds awarded: $10K. [concluded]

"Quantification of environmental stresses related to coffee cultivation in Puerto Rico." LLILAS-Benson, Mellon Faculty Research Grants. 2014. Total funds awarded: $3.4K. [concluded]

AWARDS AND HONORS

2020-22	Humanities Institute Faculty Fellow, College of Liberal Arts, UT-Austin
2017	College of Liberal Arts, UT-Austin – Summer Research Assignment
2017	College of Liberal Arts, UT-Austin – Research Fellowship
2010	Pan-American Advanced Studies Institute (PASI)-National Science Foundation, Participant & Travel Award
2001	Department of Earth Resources Graduate Scholarship-CSU
1998	Stanley Schumm Graduate Fellowship, Department of Earth Resources, Colorado State University
2000	Stanley Schumm Graduate Fellowship- Department of Earth Resources, Colorado State University
1993	Cota Robles Graduate Fellowship- College of Arts & Sciences- UC Berkeley
2000	American Geological Institute Minority Fellowship
1993	Harry Hess Prize- Dept. of Geology, UPR Mayaguez
1993	Outstanding Student-Athlete Award- UPR Mayaguez

PRESENTATIONS

Invited Presentations

"Assessing the impacts of watershed restoration in small, dry-tropical watersheds – Ongoing work in Culebra-Puerto Rico". In "Developing monitoring and evaluation framework for Culebra: Watershed Studies and Monitoring". Sponsored by NOAA. Webinar held 2 October 2020.

"The hydro-geomorphological signature of Hurricane María: Research conducted at UT-Austin". Special presentation to NSF-CRISP-Enhancing Resilience of Island Communities Research Group. Web-based presentation 1 October 2020.

"Watershed monitoring in Culebra, Puerto Rico – A reality check". In "Develop monitoring and evaluation framework for Culebra: Existing research and programs". Sponsored by NOAA. Webinar held 24 July 2020.

"A brief summary on the use of hydro-geomorphology in watershed management throughout Puerto Rico and the U.S. Virgin Islands" [PLENARY]. Simposio de rehabilitación y manejo integrado de cuencas hidrológicas en Puerto Rico, Universidad de Puerto Rico-Ponce, 11 October 2019.

"Downscaling Anthropocene concepts to small island settings – The case of St. John, US Virgin Islands". Colloquium Series, Department of Geography, University of Missouri-Columbia, 3 May 2019.

"What hit us – Notes on the physical geography of Hurricanes Irma and María". Puerto Rico in the Wake of Crisis – Toward a Just (after)Life of Disaster, The University of Texas-Austin, Austin Texas, 1 December 2018.

"Application of hydro-geomorphic principles to the management of terrestrial sediment loading rates into coral-bearing waters". 48th Annual Binghamton Geomorphology Symposium, Texas State University, San Marcos, Texas. 13-15 October 2017 [poster]

"Fitting the 'Anthropocene' argot to land use patterns and coral reef degradation in the Eastern Caribbean – Too tight, too loose, or just right?" Future Cities Symposium – The Built & Natural Environment, Department of Civil, Architectural and Environmental Engineering, The University of Texas at Austin, Austin, Texas. 25 April 2017

"Ridge to reef integrated terrestrial-marine monitoring to assess the impact of watershed restoration on coral reef sedimentation in St. John, US Virgin Islands". Presentation to NOAA's Coral Reef Conservation Program, Silver Spring, Maryland, 3 March 2017.

"Complex responses in human-influenced landscapes of the Northeastern Caribbean – The effects of historical and current land uses on sediment delivery to coral reef ecosystems". Symposium on Physical Geography: Challenges of the "Anthropocene", 2016 Annual Meeting of the American Association of Geographers, San Francisco, California. 31 March 2016

"Land-based sources of sediment: Research tools to assess and mitigate their effects on the coral reefs of Puerto Rico". Recomendaciones para la Conservación y Protección de los Arrecifes de Coral de Puerto Rico, Segundo Conversatorio, San Juan, Puerto Rico, 23 September 2011.

"Science in Translation: Application of hydrological research in the development of soil erosion control strategies in the US Virgin Islands and Puerto Rico". Department of Geography & the Environment, Colloquium Series, Austin, Texas. 6 November 2009.

"The effects of land development on runoff, sediment, and organic matter yields in a dry subtropical forest of southwestern Puerto Rico". End of the International Year of the Reef Symposium, Caribbean Coral Reef Institute, Río Piedras, Puerto Rico. 3 December 2008.

"Measuring and predicting erosion and sediment yields on dry tropical areas of the Eastern Caribbean". Department of Biology, University of Puerto Rico-Mayaguez, Special Seminar. 15 September 2005.

"Monitoring and modeling sediment production and sediment yields on St. John-USVI and La Parguera-PR". U.S. Coral Reef Task Force Caribbean-Atlantic Regional Workshop on Coral Reefs and Land-based Pollution, San Juan, Puerto Rico, 18-19 May 2004.

"St. John Erosion Study-A Work in Progress". Invited speaker to the Water Resources Research Institute Seminar Series, University of the Virgin Islands, St. Croix. 11 December 1998.

Oral Presentations in International Conferences

"Evaluating the impacts of LBSP management investments in Culebra, PR". Simposio de Cuencas Hidrográficas de Puerto Rico 2020, PR Water Resources and Environmental Research Institute & US Fish and Wildlife. 10 December 2020 [web-based; Presented by L. Vandiver]

"Using LiDAR to document the relevance of hurricane-induced landslides to the sediment budget of the Lago Lucchetti Watershed, Puerto Rico". Simposio de Cuencas Hidrográficas de Puerto Rico 2020, PR Water Resources and Environmental Research Institute & US Fish and Wildlife. 10 December 2020 [web-based]

"The propensity of high standing islands to record-setting peak flows – the case of Puerto Rico". American Association of Geographers 2019 Annual Meeting, Washington, DC. 3 April 2019.

"Land use impact on sedimentation rates during the colonization period in Coral Bay, St. John, U.S. Virgin Islands". American Association of Geographers 2019 Annual Meeting, Washington, D.C. 6 April 2019. [Presented by S. Ohr]

"Widespread deposition in coastal St. John (USVI) following three major 2017 hurricane events (Irma, Jose, and Maria)". Association for the Sciences of Limnology and Oceanography- Planet Water Challenges and Successes 2019 Meeting, San Juan, PR. 23 February – 2 March 2019. [Presented by T. Browning]

"Weighing the importance of hurricane-triggered landslides on sediment production and yields – A first glance on the effects of Hurricane María in western Puerto Rico". American Association of Geographers 2018 Annual Meeting, New Orleans, Louisiana. 10-14 April 2018

"Runoff thresholds and land-to-marine ecosystem connectivity in a dry tropical setting, St. John, US Virgin Islands". American Geophysical Union Fall 2017 Meeting, New Orleans, Louisiana, 11-15 December 2017

"Human impacts in coastal ecosystems in Puerto Rico (HICE-PR): A remote sensing, hydrologic, ecologic and socio-economic assessment with management implications". International Ocean Colour Science Meeting 2017, Lisbon, Portugal, 5-9 June 2017. [Presented by M. Barreto]

"From coffee farms to coral reefs: Soil and water management research in the Western highlands of Puerto Rico". American Association of Geographers Annual Meeting, Boston, Massachusetts, 7 April 2017.

"Human impacts over coastal ecosystems in Puerto Rico (HICE-PR), A remote sensing, hydrologic, ecologic, and socio-economic assessment with management implications", NASA-Research Opportunities in Earth and Space Science Conference, Washington DC. 2-6 May 2016 [Presented by M. Barreto]

"An unusual suspect, the threat posed by unpaved roads to coral reefs of the Eastern Caribbean". XXIV World Congress, International Union of Forest Research Organizations, Salt Lake City, Utah. 5-11 October 2014

"Plot-scale hydro-geomorphological response on a gravelly roadbed, A case study from Southern Brazil", World Congress, International Union of Forest Research Organizations, Salt Lake City, Utah. 5-11 October 2014. [presented by E. Thomaz]

"Interdisciplinary approaches to assess the hydro-geomorphological effects of land use change on marine ecosystems of Puerto Rico and the U.S. Virgin Islands, Geological Society of America Meeting of the Southern Section, San Juan, Puerto Rico. 20-21 March 2013.

"The impact of watershed development and restoration on marine sedimentation on coral reefs in St. John, U.S. Virgin Islands", Geological Society of America Meeting of the Southern Section, San Juan, Puerto Rico. 20-21 March 2013. [Presented by S Gray]

"The transfer of modern organic Carbon by landslide activity in tropical montane ecosystems", European Geological Union Meeting, Vienna, Austria. 25 April 2012

"Sediment production from natural and disturbed surfaces in dry tropical areas of La Parguera, Puerto Rico, 2003-2005." 7th Caribbean Islands Water Resources Conference, St. Croix, US Virgin Islands. 25 October 2007.

"Long-term land use dynamics and erosion processes on the Río Fajardo watershed and their effects on coral reef communities". American Society of Limnology and Oceanography, Aquatic Sciences Meeting, San Juan, Puerto Rico, 17 February 2011 [Presented by D. Torres]

"Río Fajardo Watershed: Assessing the historical impacts of land cover dynamics on sediment yields and nearshore coral reef systems from the 1930's to the present". Caribbean Coral Reef Institute 2010 Meeting, La Parguera, Puerto Rico, 12 November 2010. [Presented by D. Torres]

"Land use effects on runoff and sediment yields in small coastal watersheds of the Northeastern Caribbean- Synopsis of a decade-long research program". Annual Symposium of the International Union of Geological Sciences, Tropical Rivers Section: Hydrophysical processes, impacts, hazards and management, 45th Brazilian Congress of Geology, Belem, Brasil, 29 September 2010.

"Land development and soil erosion in the Eastern Caribbean- Key findings of a decade-long field and modeling program in the US Virgin Islands and Puerto Rico". 10th US Virgin Islands Non-Point Sources of Pollution Meeting, St. Thomas, US Virgin Islands. 6-7 May 2010.

"The effects of unpaved roads on sediment loading rates into the coastal waters of the islands of Culebra and Vieques, Puerto Rico". 10th US Virgin Islands Non-Point Sources of Pollution Meeting, St. Thomas, US Virgin Islands. 6-7 May 2010.

"Hillslope erosion on dry tropical areas of Puerto Rico and the US Virgin Islands." 1st Symposium on the Coral Reefs of Puerto Rico, Department of Natural and Environmental Resources, San Juan, Puerto Rico. 11 April 2007.

"Measuring sediment production from natural hillslopes and disturbed surfaces in a dry tropical setting- La Parguera, Puerto Rico." American Geophysical Union-Hydrology Days, Colorado State University, Fort Collins, Colorado. 20-22 March 2006.

"STJ-EROS- A GIS-based application to assess the impact of unpaved roads on watershed-scale sediment yields." Virgin Islands Non-Point Sources of Pollution Conference. St. John, US Virgin Islands. 28-30 November 2005.

"Measuring and modeling the effects of development on sediment production and delivery, St. John, US Virgin Islands". American Geophysical Union, Fall Meeting, San Francisco, California. December 2003.

"Development and application of STJ-EROS: a GIS-based sediment budget model for St. John, U.S. Virgin Islands." Presentation at the Virgin Islands Non-Point Sources of Pollution Conference, St. John, US Virgin Islands. 4-5 December 2003.

"Measuring and predicting runoff and suspended sediment yield from an unpaved road segment, St. John, U.S. Virgin Islands." American Geophysical Union-Hydrology Days, Colorado State University, Fort Collins, Colorado. 2-5 April 2001.

Poster Presentations in International Conferences

"Cutslope erosion along roadways servicing coffee-growing farms in Yauco, Puerto Rico" [Presented by E. Alicea Díaz]. Simposio de rehabilitación y manejo integrado de cuencas hidrológicas en Puerto Rico, Universidad de Puerto Rico-Ponce, 11 October 2019.

"Dynamics of road-stream connectivity: key controls, the role of wildfires, and management options". European Geophysical Union General Assembly 2019, Vienna, Austria. Session GM3.3: Connectivity in geomorphology (AG-working group), hydrological and soil system sciences: concepts, methods and societal implications, 08-Apr-2019 [Presented by L.H. MacDonald].

"Understanding human impacts to tropical coastal ecosystems through integrated hillslope erosion measurements, optical coastal water characterization, watershed modeling, marine ecosystem assessments, and natural resource valuations in two contrasting watersheds in Puerto Rico". American Geophysical Union Fall 2017 Meeting, New Orleans, Louisiana. 11-15 December 2017 [Presented by J. Ortiz-Zayas].

"Spatio-temporal distribution of soil erosion in two coffee farms located in the western interior highlands of Puerto Rico. American Geophysical Union Fall 2017 Meeting, New Orleans, Louisiana. 11-15 December 2017 [Presented by Y. Figueroa].

"Watershed runoff and sediment resuspension: factors affecting turbidity and sedimentation in bays with coral reefs, St. John, USVI". 13th International Coral Reef Symposium, Honolulu, Hawaii. 19-24 June 2016 [Presented by S.E. Campbell]

"Assessment of the historical impact of land use and restoration activities on sediment delivery and accumulation in Coral Bay, St. John, USVI". NOAA in the Caribbean- 2016 Partners Meeting, San Juan, Puerto Rico. 9-11 May 2016 [Presented by R. Larson]

"^{7}Be as an indicator of terrigenous sediment input to coastal environments: St. John, US Virgin Islands. American Geophysical Union-ASLO 2016 Ocean Sciences Meeting. 22 February 2016 [Presented by R. Larson]

"Human impacts to coastal ecosystems in Puerto Rico (HICE-PR): Actual condition of coral reefs associated with the Guánica and Manatí Watersheds in Puerto Rico". American Geophysical Union Fall 2015 Meeting, San Francisco, California. [Presented by J Torres-Pérez] 16 December 2015.

"Watershed-marine linkages: Monitoring how terrigenous runoff and wave-induced resuspension affect marine sediment dynamics in bays with coral reefs, St. John, USVI." American Geophysical Union Fall 2015 Meeting, San Francisco, California, 15 December 2015 [Presented by S. Campbell]

"Human impacts to coastal ecosystems in Puerto Rico (HICE-PR): The Río Loco Watershed in the southwest coast of Puerto Rico". NASA Carbon Cycle & Ecosystems – Joint Science Workshop, Poster Session Theme 2: Landscapes to coasts: Understanding Earth System Connections, College Park, Maryland, 20 April 2015 [Presented by J. Torres]

"Assessing the short- and long-term effects of land development on watershed erosion and sediment delivery to marine ecosystems of the U. S. Virgin Islands". American Geophysical Union Fall 2014 Meeting, San Francisco, California. 15 December 2014

"Human impacts to coastal ecosystems in Puerto Rico (HICE-PR): A long-term remote sensing, hydrologic, ecologic, and socio-economic assessment with management implications", American Geophysical Union Fall 2014 Meeting, San Francisco, California. 15 December 2014.

"Monitoring approaches to assess the impact of watershed development and restoration on land-based sedimentation in the US Virgin Islands: Lessons learned". American Geophysical Union Fall 2014 Meeting, San Francisco, California. 15 December 2014

"Quantification and modeling of foot trail surface erosion in a dry sub-tropical forest setting in the Eastern Caribbean". XXIV World Congress, IUFRO, Salt Lake City, Utah. 5-11 October 2014

"Road sediment production and delivery: Processes, rates, and possible improvements". European Geophysical Union General Assembly, Vienna Austria. 11 April 2013 [Presented by L. MacDonald]

"The effects of unpaved roads on suspended sediment concentration of third- to fifth-order streams – A case study from southern Brazil", American Geophysical Union Fall Meeting, San Francisco, California. 3 December 2012

"Ridge to reef assessment of metal concentration and mineralogy in rocks and sediments on St. John, U.S. Virgin Islands". American Geophysical Union Fall Meeting, San Francisco, California. 3 December 2012

"Effects of land use changes on watershed sediment yields and marine habitat degradation in the Northeastern Caribbean". Association of American Geographers, Seattle, Washington. 12 April 2011

"The transfer of modern organic Carbon by shallow landslide activity in a tropical montane system in Central America". NSF-Pan-American Advanced Studies Institute's Conference on Cloud Forests and Climate Change, Dominican Republic. 6-14 February 2010.

"Erosion rates in a small subtropical watershed on the East End of St. Croix, USVI- Preliminary assessment". 10th US Virgin Islands Non-Point Sources of Pollution Meeting, St. Thomas, US Virgin Islands. 6-7 May 2010 [Presented by K. Reale-Munroe]

"Plot-scale sediment and organic matter yields from natural and disturbed surfaces in a dry subtropical forest of southwestern Puerto Rico". Geological Society of America Joint Annual Meeting, Houston, Texas. 8 October 2008.

"Plot- and hillslope-scale sediment production from natural and disturbed surfaces in dry tropical areas of the Eastern Caribbean." American Geophysical Union Fall Meeting, San Francisco, California. 11-16 December 2006.

"The role of shallow landslides in the downslope transfer of organic matter and its implications on the residence time of carbon in a tropical mountain system." American Geophysical Union Fall Meeting, San Francisco, California. 11-16 December 2006

"Measuring and modeling sediment production from unpaved roads, St. John, U.S. Virgin Islands". American Geophysical Union Fall Meeting, San Francisco, California. December 2001

"Road runoff and erosion on St. John, U.S. Virgin Islands", American Geophysical Union, Fall Meeting, San Francisco, California. December 1998.

Workshops and Presentations in Non-Academic Venues

"Cafetales en Erosión". Taller de Erosión de Suelos en Cafetales de Puerto Rico. Sponsored by the University of Puerto Rico Sea Grant College Program, Maricao, Puerto Rico. 1 August 2016.

"A view from the 'shed – Coral reef conservation from the standpoint of a watershed scientist". Caribbean Coral Reefs at Risk Symposium, The University of Texas at Austin, Austin, Texas. 24-25 September 2015.

Panelist in "Environmental Cooperation Across Borders", University of Texas-Austin, co-sponsored by the C.B. Smith Sr. Centennial Chair in US-Mexico Relation and the Charles Wilson Chair in Pakistan Studies. The University of Texas at Austin, Austin, Texas. 5 May 2015.

"A hydrogeomorphological approach to curtail the threat of human-enhanced soil erosion to coral reef systems of the Northeastern Caribbean". Hydro Brown Bag Talk, Jackson School of Geosciences, The University of Texas, Austin, Texas. 11 November 2014.

"An interdisciplinary approach to address environmental issues in Northeastern Puerto Rico". Project partners meeting, University of Puerto Rico, Río Piedras, Puerto Rico. 24-27-Sep-2014.

"Historical and contemporary human use of the land and its environmental legacy in the Northeastern Caribbean". LLILAS New Faculty Talk Series, The University of Texas, Austin, Texas. 28 March 2014.

"Application of the Soil and Water Assessment Tool Model (SWAT) to estimate discharge and sediment yields from the Río Grande de Añasco Watershed, Puerto Rico". 5th University of Puerto Rico Sea Grant College Program Research Symposium, Mayaguez, Puerto Rico. 20 February 2014

"An interdisciplinary erosion mitigation approach for coral reef protection- A case study from the Eastern Caribbean". 8th International Multi-Purpose Reef & Surfing Science Symposium, Rincón, Puerto Rico. 19-21 February 2013 [Presented by J. Amador]

"Land Use and Hydro-Geomorphology". A one-day Geography graduate student course given at Universidade Estadual do Centro-Oeste, Guarapuava, Paraná, Brasil, 5 July 2012.

"An interdisciplinary erosion mitigation approach for coral reef protection- A case study from Culebra, Puerto Rico". Quantifying Sustainability in Puerto Rico-Environmental Protection Agency Sponsored Conference, San Juan, Puerto Rico. 5-7 June 2012.

"Aplicación de la investigación científica en el desarrollo de planes de manejo en cuencas hidrográficas para la protección de los arrecifes de coral en Puerto Rico y las Islas Vírgenes". Caribbean Coral Reef Research Institute Special Meeting, Puerto Rico Department of Natural and Environmental Resources, San Juan, Puerto Rico. 24 March 2010.

"Terrestrial and marine monitoring activities related to the USVI Coastal Habitat Restoration through Watershed Stabilization Project". US-EPA CARE Leadership Seminar: Understanding Land Use Impacts to Coastal Environments. University of the Virgin Islands, St. Thomas, US Virgin Islands. 16 November 2009 [Presented by T. Smith]

"Science in translation- Application of hydrologic research in the development of erosion control strategies for the Northeastern Caribbean." Special Seminar, Inter-agency Government Committee. St. Johns, Antigua. 8 January 2009.

"Science in translation- Application of hydrologic research in the development of erosion control strategies for the US Virgin Islands and Puerto Rico." Semi-annual meeting of the Puerto Rico Federal and State Non-Point Sources of Pollution Inter-agency Committee, San Juan, Puerto Rico. 11 June 2008

"Development and application of a GIS system to study the role of landslides in the carbon cycle of the Sierra de las Minas mountain range in Guatemala." Department of Biology, University of Puerto Rico, Río Piedras, Puerto Rico. 19 April 2007

"Landslides and their role as vectors for the downslope transport of carbon in Sierra de las Minas, Guatemala". Departamento de Ciencias Ambientales, Universidad del Valle, Ciudad Guatemala, Guatemala, 15 January 2007.

"The Fish Bay watershed road erosion control project- Use of a Geographical Information System tool in the development of a sediment reduction program in St. John, U.S. Virgin Islands". U.S. Coral Reef Task Force 16th Meeting, St. Thomas, US Virgin Islands. 24-28 October 2006

"Progress Report: Development of software applications for assessing the effects of land disturbance on sediment yields". University of Puerto Rico Caribbean Coral Reef Institute- Principal Investigator Meeting, La Parguera, Puerto Rico. 4 August 2006

"Measuring sediment production from natural hillslopes and disturbed surfaces in La Parguera, Puerto Rico". NOAA Coral Reef Ecosystems-Caribbean Program, Management Team Meeting, La Parguera, Puerto Rico. 10-11 April 2006

"Terrestrial sediment budget in La Parguera-Puerto Rico". NOAA Coral Reef Ecosystems-Caribbean Program, Management Team Meeting, La Parguera, Puerto Rico. 12-13 July 2004

"Terrestrial sediment budget in La Parguera-Puerto Rico". NOAA Coral Reef Ecosystems-Caribbean Program, Management Team Meeting, La Parguera, Puerto Rico. 7-8 July 2003

"Sediment budgeting on St. John, U.S. Virgin Islands." Presentation to the Water Resources Division of the National Park Service, Fort Collins, Colorado. 3 May 2001.

"Erosion and sediment transport- A workshop describing the practical applications of the St. John erosion project." The University of the Virgin Islands Water Resources Research Institute, St. John, U.S. Virgin Islands. 28 April 2000

"Overview of the St. John Erosion Study". Audubon Society, St. John, U.S. Virgin Islands. 21 March 2000

"Construction of a sediment budget in St. John". Dept. of Earth Resources-Colorado State University, Graduate student seminar series, Fort Collins, Colorado. April 1999

ADVISING AND STUDENT-RELATED SERVICE

Post-Doctoral Advising

Professor Edgar Lanz Sánchez, Instituto Tecnológico de Guaymas, México. [April 2018 - present; Matías Romero Visiting Scholars Program, The University of Texas at Austin]

Prof. Edivaldo Thomaz, Universidade Estadual do Centro Oeste-Paraná. Ph.D. in Physical Geographic Sciences from Universidade de São Paulo in 2005 [January - December 2014; Bolsa Pós-Doutorado, PDE, CNPq, Minstério da Ciéncia, Tecnologia, Inovações e comunicações, Brasil]

Dissertation Committees

Sewon Ohr, Department of Geography & the Environment, The University of Texas at Austin, 2021-present (Chair).

Mónica Flores Hernández, Department of Environmental Sciences, Universidad de Puerto Rico-Río Piedras, 2020-present.

Lara Sánchez-Morales, Department of Anthropology, The University of Texas at Austin, 2018-present.

Blaise Murphy, Department of Geography & the Environment, The University of Texas at Austin, 2019-present. (Member).

Moulay Anwar Sounny-Slitine, Department of Geography & the Environment, The University of Texas at Austin, 2016-2020. (Member).

Joel Meléndez, Department of Environmental Sciences, University of Puerto Rico-Río Piedras; 2016-present. (Member).

Robert Bean, Department of Geography & the Environment, The University of Texas at Austin, 2013-2014. (Member).

Masters Committees

Francis Russell, Department of Geography & the Environment, The University of Texas at Austin, 2020-present. (Chair).

Preston McLaughlin, Department of Geography & the Environment, The University of Texas at Austin, 2017-2019. (Chair).

Yasiel Figueroa-Sánchez, Department of Environmental Sciences, Universidad de Puerto Rico-Río Piedras, 2014-2019. (Co-chair with Prof. Jorge Ortiz).

Leila Donn, Department of Geography & the Environment, The University of Texas at Austin, 2017-present (Member).

Xiwei Guo, Department of Geography & the Environment, The University of Texas at Austin, 2015-2017. (Member).

Whitney Sears, Department of Marine Sciences and Environmental Studies, University of San Diego, 2013-2015. (Member).

Vince Clause, Department of Geography & the Environment, The University of Texas at Austin, 2012-2014. (Member).

Katherine Lininger, Department of Geography & the Environment, The University of Texas at Austin, 2011-2013. (Member).

Richard Knox, Department of Geography & the Environment, The University of Texas at Austin, 2011-2013. (Member)

Undergraduate Honors & Capstone Theses

Abby Guidry, Capstone Research Project, Environmental Sciences Program, 2019-2020. (Supervisor)

Efraín Alicea, Department of Environmental Sciences, University of Puerto Rico at Río Piedras, 2019-20. (Supervisor)

José Mendez, Department of Environmental Sciences, University of Puerto Rico at Río Piedras, 2018-19. (Supervisor)

Chris Pietra, Capstone Research Project, Environmental Sciences Program, 2017 – 2018. (Supervisor)

Eileen Villaseñor, Capstone Research Project, Environmental Sciences Program, 2016 – 2017. (Supervisor)

Cody Bjornson, Honors Thesis, Department of Geography & the Environment, 2016 – 2017. (Supervisor)

Julie González, Capstone Research Project, Environmental Sciences Program, 2015 – 2016. (Supervisor)

Jeremiah Roy, Honors Thesis, Department of Geography & the Environment, 2015. (Supervisor)

Bridging Disciplines and Other Undergraduate Independent Studies

Caroline Garnett, Independent research in Geography, 2020. (Supervisor)

Gentry Hoffman, Independent research in Geography, 2019. (Supervisor)

Marcela Morassi, Independent research in Geography, 2019. (Supervisor)

Diane Carrico, Independent research in Geography, 2019. (Supervisor)

Kate Vaughn, Independent research in Geography, 2017 – 2018. (Supervisor)

Sewon Ohr, Bridging Disciplines Internship Program, School of Undergraduate Students, 2016 – 2017. (Supervisor)

Julia Doncaster, Bridging Disciplines Internship Program, School of Undergraduate Students, 2017. (Supervisor)

Sara Cabral, McNair Scholar Program (May-2014 to May-2015), Department of Geography & the Environment and School of Journalism, 2014 – 2015. (Supervisor)

Undergraduate Internship Supervising

Sudeep Shrestha, Bridging Disciplines Internship Connecting Experience: UT-Austin, Facilities Services Department, Waste Management. 2017. (Supervisor)

Alyana Fernandez, Bridging Disciplines Internship Connecting Experience. Banks Environmental Data GIS experience. 2017. (Supervisor)

Vanessa Serrano, Bridging Disciplines Connecting Experience Program, School of Undergraduate Studies. Internship with the Colorado River Alliance. 2017. (Supervisor)

Lucas Broussard, Bridging Disciplines Connecting Experience Program, School of Undergraduate Studies, UT-Austin. Internship with the Texas Water Development Board – Water Supply and Infrastructure Division. 2016 & 2017. (Supervisor)

Josué Rodríguez- Capstone Project, Environmental Sciences Program, University of Puerto Rico-Río Piedras, 2003-2004.

Other Student Supervising

Yan Chen, Department of Geography & the Environment, The University of Texas at Austin, 2020-21, Landslide mapping in the Río Loco Watershed, Puerto Rico (Independent Study in Geography).

Heather Worth, Paola Santibañez, George Wunch, Claire Morrison, President's Award for Global Learning Competition 2020; Project: Exploring the impact of water quality data in Coahuila, México. Faculty Mentor.

Danielle Ruffe, MS Student, Department of Geography, The University of Texas at Austin, 2020, LiDAR application for determining the volume of landslide scars in Puerto Rico.

Katia Ayala, Department of Geography, The University of Texas at Austin, 2020: Research on the effects of Hurricanes on coffee farming in Puerto Rico.

Alexandria Crawford, Department of Geography, The University of Texas at Austin, 2018: Research on the effects of Hurricanes on coffee farming in Puerto Rico.

Vilmaliz Rodríguez, M.S. student, Department of Geology, University of Puerto Rico-Mayaguez, 2008-2009: Research on watershed modeling and sediment yield monitoring.

Chantale Bégin, PhD. student, Simon Fraser University, Burnaby, Canada, 2010-2012: Research on watershed and sediment yield monitoring in St. Lucia.

ADMINISTRATIVE AND PROFESSIONAL SERVICE

Department of Geography & the Environment Service

P&T dossier preparation for Prof. Caroline Faria, Associate Professor, 2020

Graduate Student Admissions Committee, 2020-2021

Led efforts in the application for the American Geophysical Union's Bridge Program to promote diversification of graduate student body, 2019 – present

P&T dossier preparation for Dr. Thoralf Meyer, senior lecturer, 2019

FII-Retention Raise Committee, 2017

Representative to Spring commencement ceremonies for the College of Liberal Arts, 2015, 2017 & 2019

Colloquium Committee, 2015 – 2017, 2018 - present

Merit Committee, 2014 – 2018, 2020 – 2022

Undergraduate Program Committee, 2013 – present

Faculty committee representative, proposed Bachelor of Arts degree in Sustainability Studies, 2013

LLILAS Service

Director of Student Programs, LLILAS, 2020- present

FLAS Fellowships Reviewer for both Graduate and Undergraduate Applications, 2020

ILASSA Graduate Student Conference, Bio-diversity and Environment Panel moderator, 2020

Graduate Student Admissions Committee, 2018, 2021

Brazil Center, 2016 FAPESP-UT Proposal Review Committee, 2016

Thesis Award Review Committee, 2016

Summer Funding Review Committee, 2014 - 2016

Minority liaison officer, 2014 – present

Representative to the Spring commencement ceremonies for the College of Liberal Arts, 2014

Argentinian Studies Program, Grant Selection Committee, 2013

Environmental Sciences Institute Service

Faculty advisor for the Bachelor of Science in Environmental Science Degree, 2013 – 2015

Coordinating committee representative for the Bachelor of Science in Environmental Science Degree, 2013 – 2015

Guest lecturer for EVS 121, Research Methods (27-Apr-2015; 29-Feb-2016; 1-Mar-2017)

University and Local Service

"Ecosystems and Human Well-being", Texas '25 Lecture Series, Office of Admissions, 10-Nov-2020

Quantitative Reasoning Flag Committee, 2019 - present

Helped evaluate residential research fellowship applications for the Institute for Historical Studies' "*Climate in Context: Historical Precedents and the Unprecedented*" theme, 2020

Guest lecturer for HIS 381, Introduction to Environmental History (Prof. Megan Raby, 15-Oct-2018)

Guest lecturer for ARC 561R, Advanced Design Studio (Prof. Fernando Lara; 21-Sep-2018)

"Foro Urgente: Unnatural disaster: Puerto Rico and the Caribbean after Hurricanes Irma and María", LLILAS-UT Austin, 17 October 2017. [Co-organizer].

"Solidarity and Conservation of a Communal Forest in the Guatemalan Highlands: The Case of EcoLogic in Totonicapán" by Dave Krammer from EcoLogic, Brown Bag Talk at the Department of Geography & the Environment, 19-April-2017. [Organizer]

"From Natural Events to Social Disasters in the Circum-Caribbean", Univ. of Texas-Austin, February 2011. [Co-organizer]

Professional Service

International Conferences

"2021 American Society of Agricultural & Biological Engineers (ASABE), Soil Erosion Research under a Changing Climate", 11-15 January 2021 [Organizing Committee Member; Member of field trip sub-committee]

"Connected hillslopes and aquatic environments in the mountainous tropics: sediment and contaminant transport and ecosystem impacts", AGU Fall Meeting, New Orleans, Louisiana, 11-15 December 2017. [Co-convener]

"Caribbean Coral Reefs at Risk", Co-sponsored by LLILAS-Benson Faculty-led Research Initiative, LLILAS-Benson's Mexican Center, Mellon Visiting Scholar Program, and the Department of Geography and the Environment at UT-Austin. 24-25 September 2015. [Organizer]

"From Ridge to Reef, Terrestrial sediment impacts to coral reef Ecosystems", American Geophysical Union, San Francisco, California, 15-19 December 2014. [Co-convener]

"Impacts of forest roads on water resources and aquatic habitat", International Union of Forest Research Organization- 2014 World Congress, Salt Lake City, Utah, 5-11 October 2014. [Moderator]

"Current Watershed Management Issues in Brazil Symposium", Co-sponsored by LLILAS-Brazil Center and the Department of Geography & the Environment at UT-Austin, April 2014. [Co-organizer]

"Human Influences on Hydro-eco-geomorphic processes across spatial scales in Forested Landscapes", oral and poster sessions for the Earth and Planetary Sciences section of the American Geophysical Union Fall 2012 meeting, San Francisco California. December 2012 [Co-convener]

International Workshops

"Taller de Erosión de Suelos en Cafetales de Puerto Rico", Univ. of Puerto Rico Sea Grant College Program, 1 August 2016. [Organizer]

Editorial Responsibilities

Editorial Board Member, *Atmosphere*, Biosphere/Hydrosphere/Land-Atmosphere Interactions Section, 2020 - present

Editorial Board Member, *Journal of Environmental Modelling and Software*, 2010-2014

Editorial Board Member, *Revista Ambiência*, Brasil, 2012-present

Peer-Reviewer (ad hoc since 2010):

Water Resources Research, Science Advances, Earth Surface Proc. & Landforms, Hydrology and Earth System Sciences, Forests, Estuarine, Coastal and Shelf Science, Environmental Modelling & Software,

Applied Geochemistry, Ecological Modeling, Caribbean Journal of Science, Biosystems Engineering, Hydrological Processes, Geomorphology, Geological Society Special Publications, Ecological Engineering, Polish Journal of Environmental Studies, Global Environmental Change, Journal of Environmental Management, Journal of Geomathematics, Land Degradation & Development, EcoHydrology, Journal of Mountain Science, Journal of Coastal Research, Remote Sensing Applications: Society and Environment, Science of the Total Environment, Marine Environmental Research, Marine Pollution Bulletin, Applied Geography, Diversity, Environmental Monitoring and Assessment, Soil and Tillage, Singapore Journal of Tropical Geography, East African Agricultural and Forestry Journal, the Journal of South American Earth Sciences, Physical Geography, Water (MDPI), and Stochastic Environmental Research and Risk Assessment.

Other Service

Member of Interdisciplinary Team assembled by the National Park Service to develop a post-hurricane assistance plan for the Virgin Islands National Park and the Virgin Islands Coral Reef National Monument, 2019-2020.

American Geophysical Union, Undergraduate Mentoring Program, 2017

American Geophysical Union, Student Presentations Evaluator, 2017

External reviewer for research program proposals submitted to the National Science Foundation's Division of Earth's Sciences, 2014-2017

Reviewer for National Fish and Wildlife Foundation's Conservation Grants, 2014.

Reviewer for the National Institute for Water Resources Competitive Grants Program, 2012.

External reviewer for the National Science Foundation's Geomorphology and Land Use Dynamics program, 2011.

Independent reviewer for environmental assessment projects submitted by the California Water Board, and hydrology consultant for NOAA and the US Fish and Wildlife on environmental assessment reports submitted for private development projects throughout the US Caribbean, 2010-present.

Participant in Coastal Ecosystem Decision Support Workshop: Guánica-Puerto Rico. Sponsored by the US Environmental Protection Agency's Ecosystem Services Research Program and the University of Puerto Rico, 2009-2011.

Reviewer and participant of Local Action Strategy plans for reducing the impact of land-based sources of pollution to coral reef systems throughout the US Caribbean (US Coral Reef Task Force & NOAA), 2008-2011.

Professional Memberships

American Association of Geographers, 2012 – present

European Geophysical Union, 2006 – present

American Geophysical Union, 1998 – present

Caribbean Conservation Association, 1998 - present

Geological Society of Puerto Rico, 1997 - present

Languages

Fully bilingual in English and Spanish. Some proficiency in written and spoken Portuguese.

Experienced with the SAS statistical package, QGIS, ArcGIS version 10.x, ArcGIS Model Builder programming; ArcHydro, ArcSWAT and NSPECT Hydrologic Modeling.