Rafael M. Almeida, Ph.D.
Curriculum Vitae

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O'Neill School of Public and Environmental Affairs
Indiana University, Bloomington, IN, USA
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EDUCATION

Ph.D., Ecology, Federal University of Juiz de Fora, Brazil | 2017

M.S., Ecology, Federal University of Juiz de Fora, Brazil | 2013

B.S., Biology, Federal University of Juiz de Fora, Brazil | 2010

APPOINTMENTS

Assistant Professor, Indiana University, Bloomington | 2024-Present

Assistant Professor, University of Texas Rio Grande Valley | 2022-2024

Atkinson Postdoctoral Fellow in Sustainability, Cornell University | 2018-2021

PEER-REVIEWED JOURNAL ARTICLES

*Lab members in **bold**; * = senior author role; 2025 Clarivate impact factors (IF) and SCImago quartiles (Q) in parentheses*

47. Pacheco FS, Heilpern S, **Almeida RM**, Sethi SA, Miranda M, Ray N, Greenstreet L, Fan J, Rappazzo BH, Ummus ME, Alves IB, Barros NO, Cavali J, Cesar GM, Doria CR, Fiorella KJ, Forsberg BR, Gomes da Silva M, Maciel DA, McGrath D, McIntyre PB, Moraes-Valenti P, Oliveira I, Ometto J, Roland R, Trindaded A, Valenti WC, **Valerio AM**, Xu X, Gomes CP, Flecker AS (2026). Land-use transitions and carbon emissions of aquaculture expansion in the Brazilian Amazon. *Science Advances* 12(33):aec5472 (IF=13.9; Q1 Multidisciplinary)

46. **Valerio AM**, Kampel M, Vantrepotte V, Ward ND, **Almeida RM**, Richey JE (2026) Remotely sensed Coloured Dissolved Organic Matter distribution in the Amazon River Continuum. *International Journal of Remote Sensing* 1-43 (IF=2.6; Q2 Earth and Planetary Sciences)

45. Salinas S, Cheng C, Pereira E, **Almeida RM**, Kang JJ (2026). Greenhouse gas flux response in biochar- and compost-amended lawn soils under simulated water saturation conditions. *CLEAN Soil Air Water* 54(8):e70254 (IF=2.0; Q3 Water Science and Technology, Environmental Chemistry)

44. Dumortier J and **Almeida RM** (2026). Limited impact of solar energy expansion on agricultural production and crop prices in the United States. *Land Use Policy* 168:108093 (IF=6.6; Q1 across all subject categories)

43. **Gomes da Silva M, Almeida RM*,** Cocco C, Pereira E (2026). Agrivoltaic shading reduces soil greenhouse gas fluxes in a semi-arid vineyard. *Environmental Research Communications* 8(6):061006 (IF=2.7; Q1 Earth Surface Processes, Agricultural and Biological Sciences, Q2 Environmental Science)

42. Abdullah SMF, Cheng C, Benavides J, Ho J, **Almeida RM*** (2026). Applications of machine learning in enhancing evaporation estimation for small reservoirs: a case study in semi-arid South Texas. *Modeling Earth Systems and Environment* 12(3):146 (IF=3.6; Q1Agricultural and Biological Sciences, Q2 Environmental Science)

41. **Stassi S**, Benavides JA, Cheng C, **Gomes da Silva M**, Ray NE, Barros N, **Almeida RM*** (2026). Low methane emissions from nutrient-rich former river channels in a hydrologically managed dryland delta. *Limnology and Oceanography Letters* 11(3):e70131 (IF=7.3; Q1 Aquatic Science)

40. **Babarinde IE**, **Bashir S**, Benavides J, Pereira E, Grodsky SM, **Almeida RM*** (2026). Geospatial assessment of agrivoltaic opportunities and land use requirements in Nigeria. *Scientific Reports* 16:19175 (IF=3.8; Q1 Multidisciplinary)

39. Anderson EP, Encalada AC, Couto T, Beveridge CF, Herrera-R GA, Heilpern SA, **Almeida RM**, Cañas-Alva C, Correa SB, Souza LS, Duponchelle F, Garcia-Davila C, Goulding M, Lopez-Casas S, Maldonado-Ocampo JA, Miranda-Chumacero G, Montoya M, Piland NC, Vicftoria-Lacy L, Varese M, Jenkins CN (2025). A baseline for assessing the ecological integrity of Western Amazon rivers. *Communications Earth & Environment* 6:623 (IF=10.4; Q1 Environmental Science)
38. Pacheco FS, Heilpern SA, DiLeo C, **Almeida RM**, Sethi SA, Miranda M, Ray N, Barros NO, Cavali J, Costa C, Doria CR, Fan J, Fiorella KJ, Forsberg BR, Gomes M, Greenstreet L, Holgerson M, McGrath D, McIntyre PB, Moraes-Valenti P, Oliveira I, Ometto J, Roland F, Trindade A, Ummus M, Valenti W, Xu X, Gomes CP, Flecker AS (2025). Towards sustainable aquaculture in the Amazon. *Nature Sustainability* 8:234-244 (IF=35.4; Q1 across all subject categories)
37. Melo Junior AM, Kosten S, Duque V, Santos A, Amado A, Soranço LC, Dreise J, Martins AC, Nasário J, Barbosa AP, Muzitano I, Cardoso G, Barbosa I, Paranaiba JR, Oliveira G, **Almeida RM**, Roland F, Barros N (2025). Low carbon footprint of Nile tilapia farming with recirculation aquaculture. *Resources, Conservation and Recycling* 217:108201 (IF=10.4; Q1 across all subject categories)
36. Oliveira PMB, **Almeida RM**, Cardoso SJ (2024). Effects of floating photovoltaics on aquatic organisms: a review. *Hydrobiologia* 852:3155-3170 (IF=3.5; Q1 Aquatic Science)
35. **Almeida RM**, **Chowdhury A**, Rodrigo H, Li M, Schmitt RJP (2024). Offsetting the greenhouse footprint of hydropower with floating solar photovoltaics. *Nature Sustainability* 7:1102-1106 (IF=35.4; Q1 across all subject categories)
34. Tangi M, Schmitt R, **Almeida RM**, Bossi S, Flecker A, Sala F, Castelletti A (2024). Robust hydropower planning balances energy generation, carbon emissions and sediment connectivity in the Mekong River basin. *Earth's Future* 12:e2023EF003647 (IF=8.5; Q1 Environmental Science)
33. Barbosa I, Paranaiba JR, Sobek S, Kosten S, **Almeida RM**, Duque V, Mendonça N, Barros N, Mendonça R (2024). Year-round CO_2 emissions from the drawdown area of a tropical reservoir: Strong seasonal and spatial variation (2024). *Geoderma* 445:116891 (IF=8.2; Q1 Soil Science)
32. Grimson M, Almeida RM et al. (2024). Scaling up pareto optimization for tree structures with affine transformations: Evaluating hybrid floating solar-hydropower systems in the Amazon. *Proceedings of the AAAI Conference on Artificial Intelligence* 38(20):22067-22075 (IF=7.8)
31. Vroom R, Kosten S, **Almeida RM**, Mendonça R, Muzitano IS, Barbosa I, Nasário J, Oliveira Jr ES, Flecker AS, Barros N (2023). Widespread dominance of methane ebullition over diffusion in freshwater aquaculture ponds. *Frontiers in Water* 5:1256799 (IF=3.7; Q1 Water Science and Technology)
30. Heilpern SA, **Almeida RM**, Fiorella KJ, Flecker AS, Williams D, McIntyre PM (2023). Nutritional challenges of substituting farmed animals for wild fish in human diets. *Environmental Research Letters* 18:114030 (IF=5.4; Q1 Environmental Science)
29. Wu D, Grodsky SM, Xu W, Liu N, **Almeida RM**, Zhou L, Miller LM, Roy SB, Xia G, Agrawal AA, Houlton BZ, Flecker AS, Xu X (2023). Observed impacts of large wind farms on grassland carbon cycling. *Science Bulletin* 68:2889-2892 (IF=9.4; Q1 Multidisciplinary)
28. Fleischmann AS, Papa F, Hamilton SK, Fassoni-Andrade A, Wongchuig S, Espinoza JC, Paiva RCD, Melack JM, Fluet-Chouinard E, Castello L, **Almeida RM**, Bonnet MP, Alves LG, Moreira D, Yamazaki D, Revel M, Collischonn W (2023). Increased floodplain inundation in the Amazon since 1980. *Environmental Research Letters* 18:034024 (IF=5.4; Q1 Environmental Science)
27. Opperman JJ, Carvalho JP, Kelman R, Schmitt RJP, **Almeida RM**, Chapin E, Flecker A, Goichot M, Grill G, Harou JJ, Hartmann J, Higgins J, Kammen D, Marin E, Martins T, Newsock A, Rogeliz C, Raepple J, Sada R, Thieme ML, Harrison D (2023). Balancing renewable energy and river resources by moving from individual assessments of hydropower projects to energy system planning. *Frontiers in Environmental Science* 10:1036653 (IF=4.4; Q1 Environmental Science)
26. **Almeida RM**, Schmitt RJP, Grodsky S, Flecker AS, Gomes CP, Zhao L, Liu H, Barros N, Kelman R, McIntyre PM (2022). Floating solar power could help fight climate change. *Nature* 606:246-249 (IF=56.1; Q1 Multidisciplinary)
25. **Almeida RM**, Schmitt RJP, Castelletti A, Flecker AS, Harou, JJ, Heilpern SA, Kittner N, Kondolf GM, Opperman JJ, Shi Q, Gomes CP, McIntyre PB (2022). Strategic planning of hydropower development:

balancing benefits and socioenvironmental costs. *Current Opinion in Environmental Sustainability* 56:101175 (IF=8.6; Q1 Environmental Science)

24. Flecker AS, Shi Q, **Almeida RM**, Angarita H, Gomes-Selman J, García-Villacorta R, Sethi SA, Thomas SA, Poff NL, Forsberg BR, Heilpern SA, Hamilton SK, Abad JD, Anderson EP, Barros N, Bernal IC, Bernstein R, Cañas CM, Dangles O, Encalada AC, Fleischmann AS, Goulding M, Higgins J, Jezequel C, Larson EI, McIntyre PB, Melack JM, Montoya M, Oberdorff T, Paiva R, Perez G, Rappazzo BH, Steinschneider S, Torres S, Varese M, Walter MT, Wu X, Xue Y, Zapata-Ríos XE, Gomes. CP (2022). Reducing adverse impacts of Amazon hydropower expansion. *Science*, 375(6582):753-760 (IF=47.3; Q1 Multidisciplinary)
23. Santos JA, Quadra GR, Almeida RM, Soranço L, Lobo H, Rocha VN, Bialetzki A, Roland F, Reis Jr JL, Barros N (2022) Sublethal effects of environmental concentrations of caffeine on a Neotropical freshwater fish. *Ecotoxicology*, s10646-021-02498-z (IF=2.7; Q2 Toxicology)
22. **Almeida RM**, Fleischmann AS, Angarita A, Brêda JPF, Cardoso DS, Collischonn W, Forsberg B, García-Villacorta R, Hamilton SK, Paiva R, Poff NL, Sethi SA, Shi Q, Gomes CP, Flecker AS (2021). Climate change may impair electricity generation and economic viability of future Amazon hydropower. *Global Environmental Change*, 71:102383 (IF=10.1; Q1 across all subject categories)
21. Paranaíba JR, Barros N, **Almeida RM**, Linkhorst A, Mendonça R, Vale R, Roland F, Sobek S (2021). *Journal of Geophysical Research: Biogeosciences* 126, e2020JG006014 (IF=4.5; Q1 across all subject categories)
20. **Almeida RM** et al. (2020). Hydropeaking operations of two run-of-river mega-dams alter downstream hydrology of the largest Amazon tributary**.** *Frontiers in Environmental Science* 8:120 (IF=4.4; Q1 Environmental Science)
19. Kosten S, **Almeida RM**, Barbosa I, Mendonça R, Muzitano IS, Oliveira-Junior ES, Vroom RJE, Wang H, Barros N (2020). Better assessments of greenhouse gas emissions from global fish ponds needed to adequately evaluate aquaculture footprint. *Science of the Total Environment* 141247 (IF=8.2; Q1 across all subject categories)
18. Paschoalini M, **Almeida RM**, Trujillo J, Melo-Santos G, Marmontel M, Pavanato HJ, Guerra FM, Ristau N, Zerbini AN (2020). On the brink of isolation: Population estimates of the Araguaian river dolphin in a human-impacted region in Brazil. *PLOS ONE* 15(4): e0231224 (IF=3.3; Q1 Multidisciplinary)
17. Paranaíba JR, Quadra G, Josué P, **Almeida RM**, Mendonça R, Cardoso SJ, Silva J, Kosten S, Campos JM, Almeida J, Araujo RL, Roland F, Barros N (2020). Sediment drying-rewetting cycles enhance greenhouse gas emissions, nutrient and trace element release, and promote water cytogenotoxicity. *PLOS ONE* 15(4): e023108 (IF=3.3; Q1 Multidisciplinary)
16. Amado, AM, **Almeida RM**, Cardoso SJ, Santos JA, Camargo AFM (2020). Freshwater sustainability and aquatic ecology in a fast-changing world. *Acta Limnologica Brasiliensia* 32:e100 (Q3 Aquatic Science)
15. Junger, PC, **Almeida RM**, Mendonça R, Farjalla VF, Melo RCN, Roland F, Barros N (2020). Not all viruses in nature are human enemies: a perspective on aquatic virus ecology in Brazil. *Acta Limnologica Brasiliensia* 32:e105 (Q3 Aquatic Science)
14. **Almeida RM**, Shi Q, Gomes-Selman JM, Angarita H, Barros N, Forsberg BR, García-Villacorta R, Hamilton SK, Melack JM, Montoya M, Perez G, Sethi SA, Gomes CP, Flecker AS (2019). Reducing greenhouse gas emissions of Amazon hydropower with strategic dam planning. *Nature Communications* 10:4281 (IF=18.9; Q1 Multidisciplinary)
13. **Almeida RM**, Arantes Jr JD, Barros N, Boemer G, Gripp A, Hamilton SK, Huszar VLM, Junger PC, Lima M, Pacheco F, Pires D, Reisinger AJ, Rosi E, Roland F (2019). Limnological effects of a large Amazonian run-of-river dam on the main river and drowned tributary valleys. *Scientific Reports* 9:16846 (IF=3.8; Q1 Multidisciplinary)
12. **Almeida RM**, Paranaíba JR, Barbosa I, Sobek S, Kosten S, Linkhorst A, Mendonça R, Quadra G, Roland F, Barros N (2019). Carbon dioxide emission from drawdown areas of a Brazilian reservoir is linked to surrounding land cover. *Aquatic Sciences* 81:68 (IF=2.4; Q1 Aquatic Sciences)

11. Feitosa IB, Huszar VLM, Domingues CD, Appel E, Paranhos R, **Almeida RM**, Branco CWC, Bastos WR, Sarmento H (2019). Plankton community interactions in an Amazonian floodplain lake, from bacteria to zooplankton. *Hydrobiologia* 831:55 (IF=3.5; Q1 Aquatic Science)
10. Quadra G, Roland F, Barros N, Malm O, Lino AS, Azevedo GM, Thomaz JR, Andrade-Vieira LF, Praça-Fontes MM, **Almeida RM**, Mendonça RF, Cardoso SJ, Guida YS, Campos JMS (2019). Far-reaching cytogenotoxic effects of mine waste from the Fundão dam disaster in Brazil. *Chemosphere* 215:753-757 (IF=8.1; Q1 across all subject categories)
9. Almeida RM, Han BA, Reisinger AJ, Kagemann C, Rosi E (2018). High mortality in aquatic predators of mosquito larvae caused by exposure to insect repellent. *Biology Letters* 14(10):20180526 (IF=2.7; Q1 Agricultural and Biological Sciences)
8. Paranaíba JR, Barros N, Mendonça R, Linkhorst A, Isidorova A, Roland F, **Almeida RM**, Sobek S (2018). Spatially resolved measurements of CO_2 and CH_4 concentration and gas-exchange velocity highly influence carbon-emission estimates of reservoirs. *Environmental Science & Technology* 52(2):607-615 (IF=12.2; Q1 across all subject categories)
7. **Almeida RM**, Pacheco FS, Barros N, Rosi E, Roland F (2017). Extreme floods increase CO_2 outgassing from a large Amazonian river. *Limnology & Oceanography* 62(3):989-999 (IF=4.6; Q1 Aquatic Science)
6. **Almeida RM**, Lovejoy T, Roland F (2016). Brazil's Amazon conservation in peril. **Science** 353(6296):228-229 (IF=47.3; Q1 Multidisciplinary)
5. **Almeida RM**, Nobrega GN, Junger PC, Figueiredo AV, Andrade AS, Moura CGB, Tonetta D, Oliveira Jr ES, Araujo F, Rust F, Piñeiro-Guerra JM, Mendonça Jr JR, Medeiros LR, Pinheiro L, Miranda M, Costa MRA, Melo ML, Nobre RLG, Benevides T, Roland R, de Klein J, Barros NO, Mendonça R, Becker V, Huszar VLM, Kosten S (2016). High primary production contrasts with intense carbon emission in a eutrophic tropical reservoir. *Frontiers in Microbiology* 7:717 (IF=5.8; Q1 Microbiology)
4. **Almeida RM**, Roland F, Cardoso SJ, Farjalla VF, Bozelli RL, Barros NO. (2015). Viruses and bacteria in floodplain lakes along a major Amazon tributary respond to distance to the Amazon River (2015). Viruses and bacteria in floodplain lakes along a major Amazon tributary respond to distance to the Amazon River. *Frontiers in Microbiology* 6:158 (IF=5.8; Q1 Microbiology)
3. **Almeida RM**, Tranvik L, Huszar VLM, Sobek S, Mendonça R, Barros N, Boemer G, Arantes Jr JD, Roland F (2015). Phosphorus transport by the largest Amazon tributary (Madeira River, Brazil) and its sensitivity to precipitation and damming. *Inland Waters* 5(3):275-282 (IF=1.7; Q1 Aquatic Science)
2. **Almeida RM**, Barros N, Cole JJ, Tranvik L, Roland F (2013). Emissions from Amazonian dams. *Nature Climate Change* 3(12):1005 (IF=26.9; Q1 Environmental Science)
1. **Almeida RM**, Pinto VG, Castro MM, Divino AC, Alves ACA, Vasconcelos D, Silva MRM, Namede N, Lima RNS, Mello RM, Siviero TS, Martins T, Campos V, Conde BE, Brito PS, Favoreto FC, Vidal LO, Roland F (2013). Addressing key ecological questions to support policy making in Brazil. *Brazilian Journal of Biology* 73(2):455-456 (IF=1.7; Q2 Agricultural and Biological Sciences)

BOOK CHAPTERS

- Grodsky SM, Ray NE, Cardoso SJ, **Almeida RM**, Murphy C, Rudstam L, Pouran H (2026). Environmental and ecological dynamics of floating solar power facilities on aquatic ecosystems. In: Pouran HM (ed.), *An Introduction to Floating Solar Farms: Significance, Opportunities, and Challenges*. Cambridge University Press

RESEARCH FUNDING

Principal Investigator

- 2025-2026 | $50,000. *Are floating solar panels releasing novel pollutants into water bodies?* Indiana University Research, Seed Grant.
- 2023-2026 | $299,296. *Co-locating irrigation and solar power infrastructure to bolster freshwater sustainability in a semi-arid agricultural region*. US Department of Agriculture NIFA-AFRI, BNRE Water Quantity and Quality. $299,296

- 2023-2025 | $2,229,177. *Validating agrivoltaic technology with underserved farmers*. US Department of Agriculture Partnerships for Climate-Smart Commodities. (Award remained at UT Rio Grande Valley following departure)

Co-Principal Investigator / Collaborator

- 2025-present | $12,000 to Almeida (co-PI). *Modernizing existing dams to meet energy and environmental objectives in the Western Balkans*. Cornell Atkinson Innovation for Impact Fund (PI: Alex Flecker, Cornell University)
- 2025-present | $9,905 to Almeida (collaborator). *Dynamic Atlas of Riverine Infrastructure (DARE)*. Schmidt Sciences, Virtual Institute for Earth's Water (PI: Stefano Galelli, Cornell University)
- 2023-2024 | $100,834 (institutional PI). *Leveraging eDNA for a national pollinator-solar energy monitoring and research network*. Department of Energy, Office of Energy Efficiency and Renewable Energy, SolWEB (PI: Steve Grodsky, Cornell University)
- 2023-2024 | $149,999 (co-PI). *Greenhouse gas flux response in biochar- and compost-amended urban soils under simulated soil hydrologic dynamics*. Department of Energy, Research Development and Partnership Pilot (PI: James Kang, UT Rio Grande Valley)
- 2022-2024, co-PI. Rising STARS Award. The University of Texas System. $300,000

Fellowships

- 2018-2020 | $150,000 (Postdoctoral Fellowship). *A computational sustainability approach to evaluate greenhouse gases and environmental effects of dams proposed for the Amazon basin*. Cornell Atkinson Postdoctoral Fellowship in Sustainability, Cornell Atkinson Center for Sustainability

PENDING PROPOSALS

- Principal Investigator | $648,069 requested. *Tracking algal and evaporative dynamics in U.S. irrigation reservoirs through multi-source Earth observation and modeled mitigation scenarios*. US Department of Agriculture NIFA-AFRI, BNRE Water Quantity and Quality
- Principal Investigator | $1,900,000 requested. *Multiscale assessment of aquatic ecosystem responses to persistent surface cover*. NSF Directorate for Biological Sciences
- Principal Investigator | $30,000 requested. *Examining chlorophyll-a responses to floating photovoltaic coverage in Indiana*. Indiana Water Resources Research Center

AWARDS AND HONORS

- 2022 | Rising STARS Award ($300,000). University of Texas System
- 2021 | Hynes Award for New Investigators. Society for Freshwater Science
- 2017 PhD Dissertation Distinction. Postgraduate Program in Ecology, Federal University of Juiz de Fora
- 2015 | José Carlos Loures Academic Excellence Award. Federal University of Juiz de Fora

TEACHING

Graduate

- E-505 Renewable and Nuclear Energy and Climate Change. Indiana University Bloomington, Fall 2025 (*n=22 students*)
- EEMS-6312 Service Learning Project II. UT Rio Grande Valley, Spring 2023 (*n=11 students*)
- ENVR-5370 Topics in Environmental Science: Energy Sustainability. UT Rio Grande Valley, Spring 2023 (*n=5 students*)
- Systems Science and Applications Seminar, EEMS 6100. UTRGV. Fall 2022 (*n=16 students*)
- Scientific Writing: Preparing Manuscripts for High-Impact Journals (*guest instructor*). Federal University of Juiz de Fora, Brazil. Summer 2023 (*n=9 students*)

Undergraduate

- E-272 Introduction to Environmental Sciences. Indiana University Bloomington. Fall 2026 (*n=62 students*)
- E-482 Overseas Topics in Environmental Sciences: Field Practices in Tropical Environmental Science (Brazil). Indiana University Bloomington. Summer 2026 (*n=24 students; 11 from IU and 13 from Brazil)*
- E-272 Introduction to Environmental Sciences. Indiana University Bloomington. Spring 2026 (*n=24 students*)
- E-272 Introduction to Environmental Sciences. Indiana University Bloomington. Fall 2026 (*n=60 students*)
- ENVR-1404 Introduction to Environmental Science I, ENVR1401. UT Rio Grande Valley, Spring 2024 (*n=45 students*)
- ENVR-1404 Introduction to Environmental Science I, ENVR1401. UT Rio Grande Valley, Spring 2022 (*n=47 students*)

MENTORING

Postdoctoral Researchers and Research Scientists

- 2025-present | Aline Valério, Indiana University (Postdoc)
- 2024-2025 | Simone Cardoso, Indiana University (Associate Research Scientist)
- 2023-2024 | Marcelo Gomes da Silva, UT Rio Grande Valley (Associate Research Scientist)

Graduate Students

- 2024-present | Augusto Del Claro, PhD, Environmental Science, Indiana University
- 2023-2026 | Maria Camila Garcia, PhD, Mathematics and Statistics with Interdisciplinary Applications. UT Rio Grande Valley
- 2025-2026 | Sushobhan Bhattarai, MES (non-thesis), Environmental Sustainability, Indiana University
- 2026 | Sakshi Nair, MS (non-thesis), Data Science, Indiana University
- 2026 | Freeny Reji, MS (non-thesis), Data Science, Indiana University
- 2026 | Heeya Amin, MS (non-thesis), Data Science, Indiana University
- 2026 | Nigel Mills, MS (non-thesis), Data Science, Indiana University
- 2023-2025 | Deisy Garcia, MS (thesis), Agricultural, Environmental and Sustainability Sciences, UT Rio Grande Valley
- 2023-2025 | Siena Stassi, MS (thesis), Agricultural, Environmental and Sustainability Sciences, UT Rio Grande Valley
- 2023-2024 | Ifeoluwa Babarinde, MS (thesis), Agricultural, Environmental and Sustainability Sciences, UT Rio Grande Valley
- 2023-2024 | Areefin Chowdhury, MS (thesis), Mathematics and Statistics with Interdisciplinary Applications. UT Rio Grande Valley

Undergraduate Students

- 2024 | Sarah Gardiner, Indiana University
- 2022-2024 | John Rodriguez, UT Rio Grande Valley
- 2022 | Annelle Faz, undergraduate student intern, UT Rio Grande Valley
- 2022 | Gabriela Salinas, undergraduate student intern, UT Rio Grande Valley

Graduate Student Committees

- 2022-2024 | Angel Salinas, MS, Agricultural, Environmental and Sustainability Sciences, UT Rio Grande Valley

INVITED TALKS

- 2026 | State University of Campinas, Brazil – Unicamp Global
- 2025 | Indiana University Bloomington – Geography Colloquium
- 2024 | Indiana University Indianapolis – Earth and Environmental Science Seminar Series
- 2023 | American Geophysical Union Annual Meeting – Water & Society Special Session
- 2022 | Geological Society of America, South-Central Section Meeting (*keynote*)
- 2022 | University of Texas Rio Grande Valley – Biology Seminar Series
- 2021 | Society for Freshwater Science Annual Meeting (*keynote*)
- 2020 | Amazon Dams Network Webinar
- 2020 | Cary Institute of Ecosystem Studies, Seminar Series
- 2018 | Cornell University, Biogeochemistry, Environmental Science, and Sustainability Seminar
- 2018 | State University of Mato Grosso, Brazil. Special Topical Seminar
- 2017 | Federal University of Juiz de Fora, Environmental Consulting Symposium (*keynote*)
- 2017 | CUNY Advanced Science Research Center, New York, NY
- 2017 | Brooklyn College, New York, NY
- 2015 | Radboud University, Netherlands – Aquatic Sciences and Environmental Biology Department Seminar

NON-ACADEMIC PROFESSIONAL EXPERIENCE

- Ecology and Environment Inc., Brazil | 2011-2018. *Environmental Consultant*. Environmental planning and impact assessment for major energy and infrastructure projects, including hydropower, wind energy, transmission lines.

SERVICE

Conference Sessions Convened

- 2026 | *Floating Solar Energy in Inland and Coastal Waters: Ecosystem Responses and Sustainability Dimensions.* Association for the Sciences of Limnology and Oceanography – International Society for Limnology Joint Meeting, Montreal, Canada
- 2025 | *Water & Society: Interdisciplinary Approaches Toward Sustainable Infrastructure Across the Water-Energy-Food Nexus.* AGU Annual Meeting, New Orleans, LA
- 2025 | *AI in Freshwater Science: Transforming Aquatic Ecology and Sustainability with Artificial Intelligence.* Society for Freshwater Science Annual Meeting, San Juan, Puerto Rico
- 2024 | *Water & Society: Interdisciplinary Infrastructure Planning Towards Sustainable Water, Energy and Food Systems*. AGU Annual Meeting, Washington, DC
- 2023 | *Water & Society: Interdisciplinary Infrastructure Planning Towards Sustainable Water, Energy and Food Systems*. 2023. AGU Annual Meeting, San Francisco, CA
- 2022 | *Balancing Benefits and Socioenvironmental Costs of Water Infrastructure Projects.* Joint Aquatic Sciences Meeting, Grand Rapids, MI
- 2019 | *River Damming: Applying Ecological Knowledge for Better Planning and Decisions.* Joint Brazilian Limnology Congress and Ibero-American Congress of Limnology, Florianópolis, Brazil

Professional Service

- 2024-present | Advisory Group Member, Indiana Water Resources Research Center
- 2025-present | Technical Committee Research Representative, North Central Regional Aquaculture Center (NCRAC)
- 2024-present | Advisory Committee Member, US Department of Energy-funded project on social barriers to agrivoltaics development in the United States, Solar and Storage Industries Institute
- 2023-2025 | Hynes Award for New Investigators Committee, Society for Freshwater Science (Chair, 2025)
- 2019-2024 | Associate Editor, *Acta Limnologica Brasiliensia*

University Service

- 2024-present | MS in Environmental Science Admissions Committee, Indiana University
- 2025 | Faculty Panelist, O'Neill Master-Level Programs Orientation, Fall 2025, Indiana University
- 2024 | Panelist, *Navigating the Academic Job Market*, Postdoctoral Association of IU Bloomington (PAIUB), Indiana University

Editorial Service

- 2019-2024 | Associate Editor. *Acta Limnologica Brasiliensia*

Peer Review

Nature Water, Nature Sustainability, Nature Communications, Nature Reviews Earth and Environment, Science Advances, Environmental Science & Technology, Environmental Science & Policy, Journal of Geophysical Research, Climatic Change, Environmental Research Letters, Aquatic Sciences, Inland Waters, Lakes and Reservoirs, Perspectives in Ecology and Conservation, Brazilian Journal of Biology, Acta Limnologica Brasiliensia

Membership in Professional Societies

AAAS, American Geophysical Union, Associação Brasileira de Limnologia, Society for Freshwater Science, Association for the Sciences of Limnology and Oceanography, International Society for Limnology

SELECTED CONFERENCE PRESENTATIONS

First author only

2026 | Tracking the rise of solar energy on global aquatic ecosystems. ASLO-SIL Joint Meeting, Montreal, Canada

2025 | Freezing hydropower's socio-environmental footprint on rivers. AGU Annual Meeting, New Orleans, LA

2023 | Harnessing floating solar power to minimize tradeoffs across energy, water, and food systems. AGU Annual Meeting, San Francisco, CA

2022 | Global opportunities and challenges for floating solar power. AGU Fall Meeting, Chicago, IL

2022 | Opportunities and risks of floating solar power. Joint Aquatic Sciences Meeting, Grand Rapids, MI

2020 | Future Amazon hydropower under climate change. AGU Fall Meeting, Online

2019 | GHG emissions of Amazon hydropower in a planning context. Joint Brazilian Limnology Congress and Ibero-American Congress of Limnology, Florianópolis, Brazil

2018 | Greenhouse-gas emissions of Amazon hydropower. Society for Freshwater Science Annual Meeting, Detroit, MI