

DR. PINKI MONDAL

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University of Delaware

Department of Geography & Spatial Sciences

125 Academy Street, Newark, DE 19716, USA

APPOINTMENTS

2024 – **Associate Professor**; Department of Geography and Spatial Sciences, University of Delaware, Newark, Delaware, USA

Joint Appointment: Associate Professor; Department of Plant and Soil Sciences

Resident Faculty: Data Science Institute

Affiliate: Delaware Environmental Institute; Water Science and Policy Program; Center for Food Systems and Sustainability

2024 – Associate Director; MS in Data Science Graduate Program
2026

2021 – Director; Environmental Science Undergraduate Program, University of Delaware
2025

2018 – Assistant Professor; Department of Geography and Spatial Sciences, University of Delaware
2024

2015 – Columbia University, New York, USA

2018 Senior Research Associate; Center for International Earth Science Information Network (CIESIN), Earth Institute

2012 – Columbia University, New York, USA

2015 Postdoctoral Research Scientist; Department of Ecology, Evolution and Environmental Biology

2011 University of Massachusetts, Amherst, Massachusetts, USA

Postdoctoral Research Associate; Department of Environmental Conservation, Family Forest Research Center

PROFESSIONAL PREPARATION

2011 University of Florida, Gainesville, Florida, USA
Ph.D. in Geography; Concentration: Land Change Science; Minor: Research Design and Methods in Conservation

2004 Jadavpur University, India
M.Sc. in Applied Geology

2002 University of Calcutta, India
B.Sc. in Geology (Honors); Minor: Chemistry and Mathematics

GRANTS AND AWARDS (PI = Principal Investigator) (funded = 22)

1. Harry R. Hughes Center for Agro-Ecology Research grant for 2026-2028 for project titled "Forest health impacts of coastal saltwater intrusion in Chesapeake Bay tributaries" (\$141,437 – **Co-PI**)
2. NSF grant for 2025-2029 for project titled "E-RISE RII: An Investigation of Saltwater Intrusion in the Complex Coastal Environment of Delaware" (\$310,907 (Mondal's share out of ~\$7 million total budget) – **Senior Personnel**)
3. NSF grant for 2025-2027 for project titled "Resilience Implementation for Salt-INtruded Geographies (RISING) Mid-Atlantic" (\$372,432 – **Senior Personnel**)
4. NSF grant for 2024-2028 for project titled "Collaborative Research: RII Track-2 FEC: Risks, Impacts, & Strategies for Coastal Communities (RISCC): Advancing convergent science to support climate change adaptation & resilience" (\$409,547 (Mondal's share out of ~\$3 million UD budget) – **Co-PI**)
5. NSF grant for 2025-2028 for project titled "Collaborative Research: Spatial Variability in Adaptations to Environmental Change" (\$142,723 – **PI**)
6. NASA DE Space Grant Graduate Fellowship for 2022-2023 (\$30,000 – **Lead PI** with co-PI PhD student Walter)
7. NSF grant for 2022-2023 for project titled "IUCRC Planning Grant University of Delaware: Center for Robotic Oceanic and Coastal Systems (CROCS)" (\$20,000 – **Co-PI**)
8. Harry R. Hughes Center for Agro-Ecology Research grant for 2022-2025 for project titled "Adapting to increasingly saline soil in coastal Maryland" (\$140,235 – **Lead PI**)
9. US National Fish and Wildlife Foundation grant for 2020-2023 for project titled "Increasing Wetland Habitat and Creating Tidal Salt Marshes to Support American Black Duck" (\$469,888 – **Co-PI**)
10. NASA EPSCoR grant for 2020-2023 for project titled "Building a Competitive and Sustainable Delaware Remote Sensing Big Data Center for Cutting-Edge Coastal and Environmental Change Research and Workforce Development" (\$749,807 – **Co-I**)
11. NASA DE Space Grant Graduate Fellowship for 2021-2022 (\$30,000 – **Lead PI** with co-PI PhD student Walter)
12. University of Delaware Research Foundation (UDRF) Grant for 2019-2023 for project titled "Big data analytics for quantifying land cover transitions in coffee production systems in Vietnam" (\$38,500 – **Single PI**)
13. University of Delaware General University Research (GUR) Grant for 2019-2023 for project titled "Analyzing radar satellite data to examine changing rice intensification patterns in the Vietnamese Mekong Delta" (\$15,000 – **Single PI**)
14. Delaware Energy Institute grant for 2019-2021 for project titled "The energy footprint of food" (\$150,000 – **Co-PI**)

15. University of Delaware Data Science Institute Seed Grant for 2019-2020 for project titled “A Data Visualization and Dissemination Dashboard (DVD2) for enhancing interdisciplinary research and collaboration” (\$10,000 – **Single PI**)
16. University of Delaware Center for Teaching and Assessment of Learning (CTAL) Instructional Improvement for 2019 for project titled “Training a new pool of teaching assistants using open educational resources for a new course in Geospatial Data Science” (\$5,000 – **Single PI**)
17. University of Delaware ADVANCE Institute Leadership Mini-grant for 2018 (\$1,563 – **Single PI**)
18. NASA Land-Cover and Land-Use Change (LCLUC) grant for FY 2017-2021 for project titled “The role of urbanization in degradation and regeneration of tropical deciduous forests in south Asia” (\$750,004 – **Co-I**)
19. Google Earth Engine Research Award for 2014 for “The sensitivity of agricultural output to climate variability across smallholder farms in South Asia” (\$62,867 – **Project collaborator**)
20. Lamont Climate Center sponsored project for FY2014-2017 on “Assessing agricultural adaptation strategies for reducing winter crop sensitivity to future climate variability in central India” (\$9,850 – **Co-PI**)
21. Indo-US Science and Technology Forum: Indo-US Bilateral Workshop for 2014 on “Adaptation of rural communities to climate change: Bridging the gap between academia and community workers and identifying research needs” (~\$16,000 – **US PI**)
22. USDA Forest Service (Remote Sensing Steering Committee) sponsored project for FY2012 (\$79,205 – **Co-I**)

Peer-reviewed journal articles (published = 40; under review = 2; in preparation = 2)

(^u undergraduate mentee, ^g graduate advisee, ^p postdoctoral mentee)

Author order generally reflects order of contributions, except for the Principal Investigator (PI), who is sometimes listed last.

Manuscripts under review or preparation

1. Sarupria, M.^g, Vargas, R., Brinson, K., **Mondal, P.** The relative importance of elevation, hydrology and soil properties in salinity-affected coastal farmlands in Delaware. *Under review*.
2. Arora, A.^g, DeFries, R., McDermid, S., **Mondal, P.**, Davis, K. Trends, drivers, and impacts of rural out-migration in the Global South. *Under review*.
3. Walter, M.^g, Ajibade, I., **Mondal, P.** Barriers to tree planting: Empirical evidence of challenges and opportunities in Philadelphia, USA. *In preparation*.
4. Maskell, G.^g, Achola, S., Benyami, E., Gornott, C., **Mondal, P.**, Shukla, R. The potential to measure resilience in agriculture systems with remote sensing. *In preparation*.

Published journal articles

1. Sarupria, M.^g, Vargas, R., Park, T., **Mondal, P.** 2026. Fluctuating soil salinity across natural and managed landscapes of the coastal mid-Atlantic facing rapid sea-level rise. *Scientific Reports* 16: 10832. doi: 10.1038/s41598-026-45611-0.

2. Walter, M.^g, Ajibade, I., Gao, J., **Mondal, P.** 2026 False Equity: Demographic shifts and urban tree cover in Northeast US cities. Urban Forestry & Urban Greening 117: 129288. doi: 10.1016/j.ufug.2026.129288.
3. Schamess, L., Ramirez, I., Bales, T., Ghimire, R., Li, Z., Martinez, A., **Mondal, P.**, O’Lear, S., Ortiz, M., Sultana, F., Zhu, L. 2026. Elevating the discipline: Creating pathways for geographers as public scholars. Annals of the American Association of Geographers 1–18. doi: 10.1080/24694452.2025.2603505.
4. **Mondal, P.**, Sarupria, M.^g, Walter, M.^g 2025. A global review of the impacts of saltwater intrusion on soils and ecosystems. Advances in Agronomy 191. doi: 10.1016/bs.agron.2025.01.002.
5. Sarupria, M.^g, Vargas, R., Walter, M.^g, Miller, J., **Mondal, P.** 2025. Non-linear spectral unmixing for monitoring rapidly salinizing coastal landscapes. Remote Sensing of Environment 319:114642. doi: 10.1016/j.rse.2025.114642.
6. Braden, D.^g, **Mondal, P.**, Park, T., de la Rosa, J.A.A., Leal, M.I.A., Lara, R.A.C., Saucedo, R.M., Paz, F., Salas-Aguilar, V.M., Soriano-Luna, M.d.l.Á, Vargas, R. 2024. Estimating forest extent across Mexico. Environmental Research Letters 19(1): 014083. doi: 10.1088/1748-9326/ad193e.
7. Miller, J., **Mondal, P.**, Sarupria, M.^g. 2024. Sensor based measurements of NDVI in small grain and corn fields by tractor, drone, and satellite platforms. Crop and Environment. 3(1): 33-42. doi: 10.1016/j.crope.2023.11.001.
8. **Mondal, P.**, Walter, M.^g, Miller, J., Epanchin-Niell, R., Gedan, K., Yawatkar, V.^g, Nguyen, E.^u, Tully, K. 2023. The spread and cost of saltwater intrusion in the US Mid-Atlantic. Nature Sustainability. doi: 10.1038/s41893-023-01186-6.
9. Khanwilkar, S., Galletti, C., **Mondal, P.**, Urpelainen, J., Nagendra, H., Jhala, Y., Qureshi, Q., DeFries, R. 2023. Land cover and forest health indicator datasets for central India using very-high resolution satellite data. Scientific Data. 10(1): 738.
10. Walter, M.^g, Bagozzi, B., Ajibade, I., **Mondal, P.** 2023. Social media analysis reveals environmental injustices in Philadelphia urban parks. Scientific Reports. 13:12571. doi: 10.1038/s41598-023-39579-4.
11. Walter, M.^g, **Mondal, P.** 2023. Mapping of *Phragmites* in estuarine wetlands using high-resolution aerial imagery. Environmental Monitoring and Assessment. 195(478), doi: 10.1007/s10661-023-11071-6.
12. **Mondal, P.**, Dutta, T., Qadir, A.^g, Sharma, S. 2022. Radar and optical remote sensing for near-real time assessments of cyclone impacts on coastal ecosystems. Remote Sensing in Ecology and Conservation. doi: 10.1002/rse2.257.
13. Maskell, G.^g, Chemura, A., Nguyen, H. T. T., Gornott, C., **Mondal, P.** 2021. Integration of Sentinel optical and radar data for mapping smallholder coffee production systems in Vietnam. Remote Sensing of Environment. 266, 112709, doi: 10.1016/j.rse.2021.112709.
14. Huang, N., **Mondal, P.**, Cook, B., McDermid, S. 2021. Moisture and temperature influences on nonlinear vegetation trends in Serengeti National Park. Environmental Research Letters. 16: 094049. doi: 10.1088/1748-9326/ac1a37.

15. **Mondal, P.**, DeFries, R., Clark, J.^u, Flowerhill, N.^u, Arif, Md., Harou, A., Downs, S., Fanzo, J. 2021. Multiple cropping alone does not improve year-round food security among smallholders in rural India. Environmental Research Letters. 16: 0605017. doi: 10.1088/1748-9326/ac05ee.
16. Choksi, P., Singh, D., Singh, J., **Mondal, P.**, Nagendra, H., Urpelainen, J., DeFries, R. 2021. Sensitivity of seasonal migration to climatic variability in central India. Environmental Research Letters. 16: 064074. doi: 10.1088/1748-9326/ac046f.
17. DeFries, R., Agarwala, M., Baquie, S., Choksi, P., Khanwilkar, S., **Mondal, P.**, Nagendra, H., Urpelainen, J. 2021. Improved household living standards can restore dry tropical forests. Biotropica. doi: 10.1111/btp.12978.
18. Jain, M., Fishman, R., **Mondal, P.**, Galford, G., Bhattarai, N., Naeem, S., DeFries, R. 2021. Groundwater depletion will reduce cropping intensity in India. Science Advances. 7(9): eabd2849. doi: 10.1126/sciadv.abd2849.
19. Baquie, S., Urpelainen, J., Khanwilkar, S., Galletti, C., Velho, N., **Mondal, P.**, Nagendra, H., DeFries, R. 2021. Migration, assets, and forest degradation in a tropical deciduous forest of South Asia. Ecological Economics. 181: 106887.
20. Liu, X., Fatoyinbo, T.E., Thomas, N.M., Guan, W., Zhan, Y., **Mondal, P.**, Lagomasino, D., Simard, M., Trettin, C.C., Deo, R., Barenblitt, A. 2021. Large-scale high-resolution coastal mangrove forests mapping across West Africa with machine learning ensemble and satellite big data. Frontiers in Earth Science. doi: 10.3389/feart.2020.560933.
21. Jin, E.^p, Al Fahel, N., **Mondal, P.**, Li, H., Archer, C. L. 2020. Energy Footprint of Food: The Case of Corn Production in Delaware. Food and Energy Security. 9:e222. doi: 10.1002/fes3.222.
22. DeFries, R., Agarwala, M., Baquie, S., Choksi, P., Dogra, N., Preetha G.S., Khanwilkar, S., **Mondal, P.**, Nagendra, H., Urpelainen, J. 2020. Post-lockdown spread of COVID-19 from cities to vulnerable forest-fringe villages in Central India. Current Science. 119(1).
23. Qadir, A.^g, **Mondal, P.** 2020. Synergistic use of radar and optical satellite data for improved monsoon cropland mapping in India. Remote Sensing. 12(3), 522. doi: 10.3390/rs12030522.
24. **Mondal, P.**, McDermid, S., Qadir, A.^g 2020. A reporting framework for Sustainable Development Goal 15: Multi-scale monitoring of forest degradation using MODIS, Landsat and Sentinel data. Remote Sensing of Environment. 237, 111592. doi: 10.1016/j.rse.2019.111592.
25. **Mondal, P.**, Liu, X., Fatoyinbo, L., Lagomasino, D. 2019. Evaluating combinations of Sentinel-2 data and machine-learning algorithms for mangrove mapping in West Africa. Remote Sensing. 11(24), 2928. doi: 10.3390/rs11242928.
26. Walter, M.^g, **Mondal, P.** 2019. A rapidly assessed wetland stress index (RAWSI) using Landsat 8 and Sentinel-1 radar data. Remote Sensing. 11(21), 2549. doi: 10.3390/rs11212549.
27. **Mondal, P.**, Trzaska, S., de Sherbinin, A. 2018. Landsat-derived estimates of mangroves in the Sierra Leone Coastal Landscape Complex during 1990-2016. Sensors. 18(1), 12. doi: 10.3390/s18010012.

28. Jain, M., **Mondal, P.**, Galford, G., Fiske, G., DeFries, R. 2017. An Automated Approach to Map Winter Cropped Area of Smallholder Farms across Large Scales Using MODIS Imagery. Remote Sensing 9(6), 566. doi: 10.3390/rs9060566.
29. DeFries, R., Fanzo, J., **Mondal, P.**, Remans, R., Wood, S. 2017. Is voluntary certification of tropical agricultural commodities achieving sustainability goals?: A review of the evidence. Environmental Research Letters 12(3) 033001.
30. DeFries, R., **Mondal, P.**, Singh, D., Agrawal, I, Fanzo, J., Remans, R., Wood, S. 2016. Synergies and Trade-offs for Sustainable Agriculture: Nutritional Yields and Climate-Resilience for Cereal Crops in Central India. Global Food Security 11, 44-53. doi: 10.1016/j.gfs.2016.07.001.
31. **Mondal, P.**, Jain, M., Zukowski, M., Galford, G., DeFries, R. 2016. Quantifying fluctuations in winter cropped area in the Central Indian Highland landscape. Regional Environmental Change 16, 69-82.
32. **Mondal, P.**, Jain, M., DeFries, R., Galford, G., Small, C. 2015. Sensitivity of crop cover to climate variability: Insights from two Indian agro-ecoregions. Journal of Environmental Management 148, 21-30.
33. **Mondal, P.**, Jain, M., Robertson, A., Galford, G., Small, C., DeFries, R. 2014. Winter crop sensitivity to inter-annual climate variability in central India. Climatic Change 126, 61-76.
34. Jain, M., **Mondal, P.**, DeFries, R., Small, C., Galford, G. 2013. Mapping cropping intensity of smallholder farms: a comparison of methods using multiple sensors. Remote Sensing of Environment 134, 210-223.
35. **Mondal, P.**, Butler, B., Kittredge, D., Moser, W. 2013. How are America's private forests changing? An integrated assessment of forest management, housing pressure, and urban development in alternate emissions scenarios. Land Use Policy 32, 230-238.
36. **Mondal, P.**, Tatem, A. 2012. Uncertainties in measuring populations potentially impacted by sea level rise and coastal flooding. PLoS One 7 (10): e48191. doi:10.1371/journal.pone.0048191.
37. **Mondal, P.**, Nagendra, H. 2011. Trends of forest dynamics in tiger landscapes across Asia. Environmental Management 48 (4), 781-794.
38. **Mondal, P.** 2011. Quantifying surface gradients with a 2-band Enhanced Vegetation Index (EVI2). Ecological Indicators 11 (3), 918-924.
39. **Mondal, P.**, Southworth, J. 2010. Evaluation of conservation interventions using a cellular automata-Markov model. Forest Ecology and Management 260 (10), 1716-1725.
40. **Mondal, P.**, Southworth, J. 2010. Protection vs. Commercial management: spatial and temporal analysis of land cover changes in the tropical forests of Central India. Forest Ecology and Management 259 (5), 1009 -1017.

Data sets and documentations (published = 14)

1. Sarupria, M.^g, **Mondal, P.**, Park, T., & Vargas, R. 2025. Multi-temporal land cover dataset for the Delmarva Peninsula (2000, 2002, 2005, 2009, 2016) at 30m resolution. Available at <https://doi.org/10.5281/zenodo.16783114>

2. Sarupria, M.^g, **Mondal, P.**, Vargas, R., Walter, M.^g, & Miller, J. 2025. Fractional abundance datasets for salt patches and marshes across the Delmarva Peninsula, v1. Available at: <https://doi.org/10.5281/zenodo.14709313>
3. Braden, D.^g, **Mondal, P.**, Park, T., De la rosa, J.A.A., Leal, M.I.A., Lara, R.A.C., Saucedo, R.M., Salas-Aguilar, V.M., Soriano-Luna, M.A., & Vargas, R. 2023. Satellite-Derived Forest Extent Likelihood Map for Mexico. ORNL DAAC, Oak Ridge, Tennessee, USA. Available at: <https://doi.org/10.3334/ORNLDAAC/2320>
4. Walter, M.^g, **Mondal, P.** 2023. High resolution Phragmites australis classification in Delaware estuaries. Available at: <https://doi.org/10.5281/zenodo.7644495>
5. Walter, M.^g, **Mondal, P.** 2023. High resolution greenspace land cover in Philadelphia, Pennsylvania. Available at: <https://doi.org/10.5281/zenodo.7604104>
6. **Mondal, P.**, Walter, M.^g, Miller, J., Epanchin-Niell, R., Yawatkar, V.^g, Nguyen, E.^u, Gedan, K. and Tully, K. 2022. High-resolution remotely sensed datasets for saltwater intrusion across the Delmarva Peninsula. Available at: <https://doi.org/10.5281/zenodo.6685695>
7. **Mondal, P.**, DeFries, R., Clark, J.^u, Flowerhill, N.^u, Arif, Md., Harou, A., Downs, S., Fanzo, J. 2021. Multiple cropping alone does not improve year-round food security among smallholders in rural India. Dryad. <https://doi.org/10.5061/dryad.tdz08kq07>
8. Khanwilkar, S., Galletti, C., **Mondal, P.**, Urpelainen, J., Nagendra, H., Jhala, Y.V., Quresh, Q., DeFries, R. 2021. Tropical Deciduous Forests of South Asia: Land Cover Classification and Monitoring Forest Degradation Using the Bare Ground Index LULC. NASA LCLUC Metadata. <https://lcluc.umd.edu/metadatafiles/LCLUC-2017-PIDefries/>
9. DeFries, R., Agarwala, M., Baquie, S., Choksi, P., Khanwilkar, S., **Mondal, P.**, Nagendra, H., Urpelainen, J. 2021. Improved household living standards can restore dry tropical forests. Dryad. <https://doi.org/10.5061/dryad.44j0zpcdg>
10. **Mondal, P.**, Dutta, T., Qadir, A.^g, Sharma, S. 2020. High-resolution inundation dataset for coastal India and Bangladesh (Version 1.0.0). Zenodo. <http://doi.org/10.5281/zenodo.4390084>
11. Meiyappan, P., Roy, P. S., Soliman, A., Li, T., **Mondal, P.**, Wang, S., Jain, A. K. 2018. India Village-Level Geospatial Socio-Economic Data Set: 1991, 2001. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). <https://doi.org/10.7927/H4CN71ZJ>
12. Jain, M., **Mondal, P.**, Galford, G. L., Fiske, G., DeFries, R. S. 2017. India Annual Winter Cropped Area, 2001-2016. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). <https://doi.org/10.7927/H47D2S3W>
13. Center for International Earth Science Information Network - CIESIN - Columbia University. 2016. Global Urban Heat Island (UHI) Data Set, 2013. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). <http://dx.doi.org/10.7927/H4H70CRF>
14. Center for International Earth Science Information Network -CIESIN - Columbia University. 2016. Global Summer Land Surface Temperature (LST) Grids, 2013. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). <http://doi.org/10.7927/H408638T>

Invited book chapters (published = 3, accepted = 1)

1. UNESCO and the American Geophysical Union, 2023. Geoscience in Action: Advancing Sustainable Development. Available at: <https://geoscienceinaction.org/-/media/Files/Geoscience-In-Action/023-4187542760-Geoscience-In-Action-Report-WEB.pdf>
2. Velho, N., DeFries, R., Nagendra, H., Galletti, C.S., Baquie, S., Urperlainen, J., **Mondal, P.**, Agarwala, M. Impacts of urban migration on forest use in central India. Book Chapter. Forthcoming.
3. **Mondal, P.**, Nagendra, H. 2012. Parks and Preserves. In Joel Campbell, Jingjing Liu, & Sony Pellissery (Eds.), The Encyclopedia of Sustainability, Vol. 7: China, India, and East and Southeast Asia: Assessing Sustainability. Great Barrington, MA: Berkshire Publishing.
4. Nagendra, H., **Mondal, P.**, Adhikari, S., Southworth, J. 2012. Peopled parks: Forest change in India's protected landscapes. In E. S. Brondizio and E. F. Moran (Eds.), Human-Environment Interactions: current and future directions, Springer.

Editorials (published = 2)

1. **Mondal, P.**, McDermid, S. 2021. Global Vegetation and Land Surface Dynamics in a Changing Climate. *Land* 10(1), 45, <https://doi.org/10.3390/land10010045>.
2. **Mondal, P.**, Nagendra, H., DeFries, R. 2016. Addressing issues of climate change impacts, adaptation and vulnerability on the ground: Challenges and opportunities. *Current Science* 110 (7), 1193-1194.

Technical/scientific reports (published = 7)

1. **Mondal, P.**, de Sherbinin, A., Trzaska, S. 2020. Sierra Leone mangrove forest cover change and carbon stock assessment 2017. Report published under the USAID West Africa Biodiversity and Climate Change (WA BiCC) project. Palisades, NY: Center for International Earth Science Information Network, Columbia University. Available at: https://pdf.usaid.gov/pdf_docs/PA00X4JZ.pdf
2. Trzaska, S., de Sherbinin, A., Kim-Blanco, P., Mara, V., Schnarr, E., Jaiteh, M., **Mondal, P.** 2018. Climate change vulnerability assessment in mangrove regions of Sierra Leone: Long version. Report published under the USAID West Africa Biodiversity and Climate Change (WA BiCC) project. Palisades, NY: Center for International Earth Science Information Network, Columbia University. Available at: http://www.ciesin.columbia.edu/wa-bicc/SierraLeone_Coastal_VA_long-report_jan2018.pdf
3. Trzaska, S., de Sherbinin, A., Kim-Blanco, P., Mara, V., Schnarr, E., Jaiteh, M., **Mondal, P.** 2017. Climate change vulnerability assessment in mangrove regions of Sierra Leone: Abridged version. Report published under the USAID West Africa Biodiversity and Climate Change (WA BiCC) project. Palisades, NY: Center for International Earth Science Information Network, Columbia University. Available at: <http://www.ciesin.columbia.edu/wa-bicc/wa-bicc-ccva-abridged-ff.pdf>
4. Housman, I., **Mondal, P.**, Hamilton, R., Fisk, H., Lister, A., Butler, B., Jacobs, D., Lister, T., Salajanu, D. 2013. Percent impervious landcover modeling: Analyzing the impacts of model types,

calibration methods, and ecoregions. RSAC-10025-RPT1. Salt Lake City, UT: U.S. Department of Agriculture, Forest Service, Remote Sensing Applications Center. 13 p.

5. **Mondal, P.** 2011. Parks and policies: Integrating geospatial tools and modeling to evaluate conservation interventions in central India, University of Florida. (*PhD dissertation*)
6. **Mondal, P.** 2010. 30 Years of Protection: A Success Story. In: Jha, M. and Joshi, C. 2010. Pench, Maharashtra: The Big Tale of a Small Tiger Reserve, Technical Book No. 3, Pench Tiger Reserve, India and Center for Environment Education, India.
7. **Mondal, P.** 2004. Land use/land cover analysis of Sundarbans using remote sensing techniques: A case study in Jharkhali Island. (*Master's thesis*)

AWARDS, HONORS AND NOMINATIONS

- 2025 Nominated for the Mid-Career Faculty Excellence in Scholarship Award (university-level), University of Delaware
- Nominated for the Junior Faculty Award for Scholarly Excellence (college-level), University of Delaware
- Honorable Mention, UD Open Data Impact Award (university-level), University of Delaware
- 2023 [Elevate the Discipline Scholar in Climate and Society](#), American Association of Geographers
- Nominated for the Research Excellence Award, [American Association of Geographers](#) Human Dimensions of Global Change specialty group
- 2022 Nominated for the Junior Faculty Award for Scholarly Excellence (college-level), University of Delaware
- 2020 Nominated for the Emerging Scholar Award, [American Association of Geographers](#) Spatial Analysis and Modeling specialty group
- Nominated for the Excellence in Teaching Award (university-level), University of Delaware
- 2015 Junior Researcher Task Force member, 2nd International Conference on Global Food Security
- 2011 Sponsored Student Travel Award, US Regional Association of the International Association for Landscape Ecology
- 2010 NSF "On the Cutting Edge" Professional Development Workshop Stipend
- NASA-MSU Professional Enhancement Award, US Regional Association of the International Association for Landscape Ecology
- Best Paper Award, University of Florida Graduate Student Council Interdisciplinary Research Conference
- CLAS Graduate Travel Award, University of Florida
- 2009 Ryan Poehling Fellowship, University of Florida
- 2009 Graduate Student Council Travel Grant, University of Florida
- Imagery Grant, GeoEye Foundation, Virginia

- Best Poster Award, University of Florida Graduate Student Council Interdisciplinary Research Conference
- University of Florida Office of Graduate Research and Program Travel Grant
- 2008 Tropical Conservation and Development Field Research Grant, University of Florida
Graduate Student Council Travel Grant, University of Florida
- 2006 Alumni Fellowship, University of Florida
- 2002, Certificate of merit under National Scholarship Scheme, Government of India
1997

MEDIA COVERAGE

- 2025 [Identifying salt patches and marsh](#): UDaily article
CBS Documentary: [An American River](#)
- 2024 [Delaware Public Media](#): Enlighten me: Why the balance between fresh and saltwater in Delaware is getting worse
[UDaily article](#): The coast is unclear
[Chesapeake Bay Journal](#): As land turns salty, farmers grapple with lost income
Dr. Mondal featured in [Innovation Delaware](#) (Delaware Business Times)
[Spotify podcast](#): Delmarva's invisible flood – A partnership in Science (Harry R. Hughes Center for Agro-Ecology)
[National Wildlife Federation](#): Seeking solutions for saltwater intrusion
[WRDE Coast TV](#): Saltwater intrusion putting a strain on Delmarva farmers
- 2023 [CBS News Baltimore](#): Saltwater posing threats to farmers livelihoods on Maryland's Eastern Shore.
[Chesapeake Bay Journal](#): Salt patches, a product of rising seas, are spreading rapidly on the Chesapeake's Eastern Shore.
[UDaily article](#): Unequal park quality.
[Delaware News Journal](#): Delaware farmland is turning to marsh.
[WRDE Coast TV](#): Saltwater intrusion on local farms.
[Scripps News](#): Rising sea levels put coastal farms at risk from saltwater intrusion.
[UDaily article](#) covering Dr. Mondal's paper on saltwater intrusion.
Dr. Mondal's paper covered by [Solutions from the Land](#).
- 2022 Dr. Mondal quoted in [Circle of Blue](#) article.
[University of Maryland](#) covering Dr. Mondal's collaborative work on saltwater intrusion.
[UDaily article](#) covering Dr. Mondal's collaborative work on saltwater intrusion.

- [Mongabay India](#) covering Dr. Mondal's paper on cyclone impacts in coastal S. Asia.
- 2021 [UDaily article](#) covering Dr. Mondal's food and nutrition security research.
[CNN](#) covering Dr. Mondal's collaborative research in India.
[UDaily article](#) covering Dr. Mondal's collaborative research in India.
- 2020 [UDaily article](#) covering Dr. Mondal's forest cover research.
- 2019 Dr. Mondal quoted in [Washington Post](#) article.
- 2018 [NASA Earth Science User Data Profile](#) for Dr. Mondal.
- 2014 Ashoka Trust for Research in Ecology and the Environment (ATREE) outreach newsletter featuring Indo-US bilateral workshop that Dr. Mondal led and co-organized: [Keeping pace with climate change impacts.](#)
- 2014 Times of India coverage on Kanha-Pench Landscape Symposium that Dr. Mondal co-organized: [Symposium on Kanha-Pench landscape held at Mocha.](#)
- 2010 Government of India (National Tiger Conservation Authority) bi-monthly outreach journal STRIPES highlighting Dr. Mondal's doctoral dissertation research: [Pench Tiger Reserve: Increase in Forest Cover.](#)
- University of Florida alumni newsletter CLASnotes featuring Dr. Mondal's doctoral work: From Deforestation to Reforestation.
- 2009 Times of India coverage of Dr. Mondal's doctoral research: [Pench forest cover up, says study.](#)

INVITED RESEARCH SEMINARS: EXTERNAL

- 2026 **Chesapeake Bay Scientific and Technical Advisory Committee (STAC) workshop** titled 'State of the Science of Salinity Risks in the Chesapeake Bay and Its Tributaries: Connecting Monitoring, Modeling and Management', USA
 Delaware State University, USA
University of Texas Rio Grande Valley, School of Earth, Environmental, and Marine Sciences, USA.
- 2023 **Temple University**, GIS Day Keynote Speech, Department of Geography and Urban Studies, USA.
Environmental Research: Food Systems, New journal global launch event (virtual).
- 2022 **Temple University**, Department of Earth and Environmental Science, USA.
Pennsylvania State University, Department of Ecosystem Science and Management, USA.
Florida State University, Department of Geography, USA.
- 2021 **Columbia University**, Department of Electrical Engineering, USA.
University of California Santa Barbara, Bren School of Environmental Science and Management, USA.

NSF Convergence Workshop on Food Security in Extreme Environments and Food Deserts, USA.

University of Washington, School of Environmental and Forest Sciences, USA.

University of North Carolina Wilmington, Department of Earth and Ocean Sciences, USA.

Boise State University, Ecology, Evolution and Behavior Program, USA.

Central Indian Landscape Symposium 4, India.

2020 Delaware Museum of Natural History. World of Discovery Lecture Series.

Canceled due to COVID-19.

2019 **American Geophysical Union Fall Meeting**, USA.

Can Tho University, College of Environment and Natural Resources, Vietnam.

2018 **Rutgers University**, USA. Annual Rutgers Climate Symposium.

2017 **Columbia Global Centers** | Mumbai, India.

New York University, Department of Environmental Studies.

2016 **Pre-IGU International Conference** on Land Use and Rural Sustainability, Xi'an, China.

2015 **AsiaFlux Workshop** 2015 and ISPRD TC WG VIII/3: Weather, Atmosphere and Climate Studies Joint Conference, Pune, India.

2014 **San Francisco State University**, USA.

2013 **Oklahoma State University**, USA.

2010 **University of Colorado**, Colorado Springs, USA.

INVITED RESEARCH SEMINARS: INTERNAL

2024 NASA Science Chief Nicky Fox visit, University of Delaware, USA.

2023 NSF EPSCoR Project WiCCED all-hands meeting. Dover, DE

2022 Ocean Currents Lecture Series. University of Delaware, USA.

2021 NSF EPSCoR Project WiCCED Seminar Series. University of Delaware, USA.

Department of Geography and Spatial Sciences. University of Delaware, USA.

2020 Biden School of Public Policy and Administration. University of Delaware, USA.

DARWIN HPC kick-off meeting. University of Delaware, USA.

2019 Department of Plant and Soil Sciences. University of Delaware, USA.

GIS Coffee Hour. University of Delaware, USA.

PUBLISHED ABSTRACTS AND PRESENTATIONS

(^g graduate advisee, ^u undergraduate mentee, ^h high school mentee)

1. Callahan, A.^g, Mondal, P. Examining post-storm damages in tidal marshes across the Delmarva Peninsula. DENIN Research Symposium, University of Delaware. 15 April 2026. Poster presentation.

2. Ginsburg, A.^g, Mondal, P. Shifting land use and compound climate hazards in Texas' Lower Rio Grande Valley. DENIN Research Symposium, University of Delaware. 15 April 2026. Poster presentation.
3. Hollinger, L.^g, Mondal, P. Satellites to species: Marsh vegetation identification in the Delmarva Peninsula. DENIN Research Symposium, University of Delaware. 15 April 2026. Poster presentation.
4. Callahan, A.^g, Mondal, P. Examining post-storm damages in tidal marshes across the Delmarva Peninsula. DE EPSCoR Statewide Symposium, University of Delaware. 10 April 2026. Poster presentation.
5. Hollinger, L.^g, Mondal, P. Satellites to species: Marsh vegetation identification in the Delmarva Peninsula. DE EPSCoR Statewide Symposium, University of Delaware. 15 April 2026. Poster presentation.
6. Mondal, P., Sarupria, M.^g. Assessing rapidly changing coastal landscapes in the eastern USA using satellite remote sensing. The American Association of Geographers Annual Meeting. 24-28 March 2025. Oral Presentation.
7. Sarupria, M.^g, Mondal, P. The effect of salinization on landscape dynamics in the eastern USA for 2000 – 2016. The American Association of Geographers Annual Meeting. 24-28 March 2025. Oral Presentation.
8. Mondal, P., Sarupria, M.^g, Walter, M.^g. Rapidly changing coastal landscapes in the eastern USA: Challenges and potential solutions. Global Land Project 5th Open Science Meeting. 4-8 November 2024, Oaxaca, Mexico. Oral Presentation.
9. Sarupria, M.^g, Walter, M.^g, Mondal, P. Mapping Delmarva's changing landscape: Monitoring saltwater intrusion effects through remote sensing. SALT (Salinity Affected Lands in Transition) Conference. 11-12 June 2024. Oral Presentation.
10. Mondal, P., Sarupria, M.^g, Walter, M.^g. Saltwater intrusion in coastal US landscapes: Challenges and potential solutions. The American Association of Geographers Annual Meeting. 16-20 April 2024. Oral Presentation (virtual).
11. Sarupria, M.^g, Walter, M.^g, Mondal, P. The role of hydroclimatic factors in driving the spatio-temporal changes in salt-impacted farmlands in coastal Delmarva. The American Association of Geographers Annual Meeting. 16-20 April 2024. Oral Presentation.
12. Walter, M.^g, Mondal, P. Equitable Distribution of Tree Cover in the USA Northeast Megalopolis. The American Association of Geographers Annual Meeting. 16-20 April 2024. Oral Presentation.
13. Sarupria, M.^g, Vargas, R., Mondal, P. Mapping the impacts of saltwater intrusion in Delmarva using remote sensing. Delaware Environmental Institute Research Symposium. 9 April 2024, University of Delaware. Poster Presentation.
14. Sarupria, M.^g, Mondal, P. Spectral unmixing of satellite images for quantifying salt-impacted farmlands in Delmarva. Delaware Environmental Institute Research Symposium. 12 April 2023, University of Delaware. Poster Presentation.
15. Walter, M.^g, Bagozzi, B., Ajibade, I., Mondal, P. Semi-supervised topic modeling and Random Forest for identifying environmental injustice in Philadelphia. Delaware Environmental Institute Research Symposium. 12 April 2023, University of Delaware. Poster Presentation.

16. Sarupria, M.^g, Mondal, P. Spectral unmixing of satellite images for quantifying salt-impacted farmlands in Delmarva. Ecological Society of America 2023 Mid-Atlantic Annual Meeting. 1 April 2023. Poster presentation.
17. Mondal, P., Walter, M.^g, Sarupria, M.^g, Miller, J., Epanchin-Niell, R., Gedan, K., Tully, K. Marsh expansion on the Delmarva farmlands: Can ongoing changes be a part of long-term land management? The American Association of Geographers Annual Meeting. 23-27 March 2023. Oral Presentation.
18. Walter, M.^g, Bagozzi, B., Ajibade, I., Mondal, P. Unequal Urban Park Quality leads to environmental injustices in Philadelphia, Pennsylvania. The American Association of Geographers Annual Meeting. 23-27 March 2023. Oral Presentation.
19. Sarupria, M.^g, Walter, M.^g, Mondal, P. Estimating the impacts of saltwater intrusion on Coastal Farmlands of Delmarva Peninsula using Sentinel-2 Imagery and spectral unmixing. The American Association of Geographers Annual Meeting. 23-27 March 2023. Oral Presentation.
20. Walter, M.^g, Bagozzi, B., Ajibade, I., Mondal, P. Semi-supervised topic modeling and Random Forest for identifying environmental injustice in Philadelphia. Delaware Space Grant Consortium Research Symposium. 22 March 2023, Poster Presentation.
21. Sarupria, M.^g, Mondal, P. Spectral unmixing of satellite images for quantifying salt-impacted farmlands in Delmarva. Delaware Environmental Monitoring Summit. 15 March 2023. Poster presentation.
22. Mondal, P., Vachepalli, G.^g, Callahan, T. A mobile app for saltwater intrusion across the Delmarva Peninsula. 2023 Saltwater Intrusion Stakeholder Meeting, 24 February 2023, Princess Anne, Maryland. Oral Presentation (virtual).
23. Sarupria, M.^g, Mondal, P. Spectral unmixing of satellite images for quantifying salt-impacted farmlands in Delmarva. DARWIN Computing Symposium. 23 February 2023. Poster presentation.
24. Walter, M.^g, Bagozzi, B., Ajibade, I., Mondal, P. Semi-supervised topic modeling and Random Forest for identifying environmental injustice in Philadelphia. DARWIN Computing Symposium. 23 February 2023. Poster presentation.
25. Vachepalli, G.^g, Callahan, T., Mondal, P. A mobile app for saltwater intrusion across the Delmarva Peninsula. DARWIN Computing Symposium. 23 February 2023. Poster presentation.
26. Braden, D.^g, Mondal, P., Park, T., Vargas, R. Identifying variability in forest cover estimates in Mexico by comparing multiple satellite-derived data products. American Geophysical Union Fall Meeting. 12-16 December 2022. Poster Presentation (virtual).
27. Sarupria, M.^g, Walter, M.^g, Mondal, P. Mapping salt-impacted coastal farmlands of Delmarva Peninsula using sentinel-2 imagery. American Geophysical Union Fall Meeting. 12-16 December 2022. Poster Presentation (virtual).
28. Walter, M.^g, Miller, J., Yawatkar, V.^g, Epanchin-Niell, R., Nguyen, E.^u, Gedan, K., Tully, K., Mondal, P. Mapping salt deposits in the delmarva peninsula using aerial imagery and Landsat. 2022 Mid-Atlantic Regional Space Grant Consortium Meeting. 21-23 August 2022. Poster Presentation.

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29. Walter, M.^g, Mondal, P. Inequalities of urban park quality using remote sensing and social media data. Delaware Environmental Institute Research Symposium. 13 April 2022, University of Delaware. Poster Presentation.
 30. Walter, M.^g, Miller, J., Yawatkar, V.^g, Epanchin-Niell, R., Nguyen, E.^u, Gedan, K., Tully, K., Mondal, P. Mapping salt deposits in the Delmarva Peninsula using aerial imagery and Landsat. Delaware Space Grant Consortium Research Symposium. 7 April 2022, University of Delaware. Poster Presentation.
 31. Ventimiglia, I.^u, Ahouangbenon, M.^g, Mondal, P. Radar satellite data for mapping rice farming activities in the Vietnamese Mekong Delta. Delaware Space Grant Consortium Research Symposium. 7 April 2022, University of Delaware. Poster Presentation.
 32. Mondal, P., Walter, M.^g, Miller, J., Yawatkar, V.^g, Epanchin-Niell, R., Nguyen, E.^u, Gedan, K., Tully, K. The invisible threat of saltwater intrusion on the Delmarva farmlands. The American Association of Geographers Annual Meeting. 25 February-1 March 2022 (virtual). Oral Presentation.
 33. Mondal, P., Walter, M.^g, Miller, J., Yawatkar, V.^g, Epanchin-Niell, R., Nguyen, E.^u, Gedan, K., Tully, K. Visual evidence of saltwater intrusion in coastal Maryland. Maryland Water Monitoring Council Annual Conference. 2-3 December 2021 (virtual). Oral Presentation.
 34. Mondal, P., Soni, S.^h. Do you have salt on your land? Delaware Data Science Symposium, 17 November, 2021, University of Delaware. Oral Presentation.
 35. Yawatkar, V.^g, Nguyen, E.^u, Walter, M.^g, Tully, K., Mondal, P. Using Machine Learning and Remote Sensing Data for Land Cover Classification in the Eastern USA. 6th DENIN Graduate Research Symposium, 5 March, 2021 (virtual), University of Delaware. Poster Presentation.
 36. Yawatkar, V.^g, Walter, M.^g, Nguyen, E.^u, Tully, K., and Mondal, P. Using machine learning and remote sensing data for land cover classification in the eastern USA. DARWIN Computing Symposium, February 2021 (virtual). Poster presentation.
 37. Walter, M.^g, Mondal, P. Invasive species mapping in estuarine wetlands using high-resolution aerial imagery. GIS Day, University of Delaware, November 2020 (virtual). Oral presentation.
 38. Walter, M.^g, Mondal, P. Invasive species mapping in estuarine wetlands using high-resolution aerial imagery. Middle States American Association of Geographers Annual Meeting. October 2020 (virtual). Oral presentation.
 39. Yawatkar, V.^g, Nguyen, E.^u, Walter, M.^g, Tully, K., and Mondal, P. Quantifying land cover changes due to saltwater intrusion in the Delmarva peninsula using machine-learning and NAIP imagery. Middle States American Association of Geographers Annual Meeting. October 2020 (virtual). Poster presentation.
 40. Mondal, P., DeFries, R., Harou, A., Downs, S., Ad. Arif, Clark, J.^u, Flowerhill, N.^u, Fanzo, J. Implications of agricultural intensification for dietary diversity and food security in rural India. The American Association of Geographers Annual Meeting. 6-10 April 2020, Denver. Oral Presentation. *Session canceled due to COVID-19.*
 41. Qadir, A.^g, Mondal, P. Improved monsoon crop mapping with radar-optical satellite data for small-scale farms in tropical regions. The American Association of Geographers Annual Meeting. 6-10 April 2020, Denver. Oral Presentation. *Session canceled due to COVID-19.*

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42. Walter, M.[§], Mondal, P. A rapidly assessed wetland stress index (RAWSI) using Landsat 8 and Sentinel-1 radar data. The American Association of Geographers Annual Meeting. 6-10 April 2020, Denver. Oral Presentation. [Session canceled due to COVID-19.](#)
 43. Yawatkar, V.[§], Nguyen, E.^u, Walter, M.[§], Tully, K., Mondal, P. Quantifying land cover changes due to saltwater intrusion in the Delmarva peninsula using machine-learning and NAIP imagery. The American Association of Geographers Annual Meeting. 6-10 April 2020, Denver. Poster Presentation. [Session canceled due to COVID-19.](#)
 44. Yawatkar, V.[§], Nguyen, E.^u, Walter, M.[§], Tully, K., Mondal, P. Using machine learning to study saltwater intrusion in the Delmarva Peninsula. DENIN Graduate Research Symposium, 5 March, 2020, University of Delaware. Poster Presentation.
 45. Mondal, P., Walter, M.[§], Miller, J., Yawatkar, V.[§], Epanchin-Niell, R., Nguyen, E.^u, Gedan, K., Tully, K. 2020. Using remote sensing to map saltwater intrusion. 2020 Saltwater Intrusion Stakeholder Meeting, 14 February 2020, Princess Anne, Maryland. Oral Presentation.
 46. Yawatkar, V.[§], Nguyen, E.^u, Walter, M.[§], Tully, K., Mondal, P. Machine learning and cloud computing for environmental research. DARWIN Computing Symposium, 14 February 2020, University of Delaware. Poster Presentation.
 47. Mondal, P., Jain, M., Singh, D., McFadden, C.^u, Galford, G., DeFries, R. Assessing impacts of climatic and non-climatic factors on smallholder agricultural systems in India. American Geophysical Union Fall Meeting. 9-13 December 2019, San Francisco. Oral Presentation.
 48. Qadir, A.[§], Mondal, P. A novel machine learning based approach to generate dynamic monsoon crop mask for small-scale farms in tropical regions using a combination of radar and optical satellite data. American Geophysical Union Fall Meeting. 9-13 December 2019, San Francisco. Poster Presentation.
 49. Clark, J.^u, Mondal, P. When producers are consumers: Dietary diversity and food insecurity among Indian smallholder farmers. 10th Annual Undergraduate Research and Service Scholar Symposium. 15 August 2019, University of Delaware. Poster Presentation.
 50. Mondal, P., McDermid, S., Qadir, A.[§] Multi-scale monitoring of forest degradation using MODIS, Landsat and Sentinel data. Global Land Project 4th Open Science Meeting. 24-26 April 2019, Bern, Switzerland. Oral Presentation.
 51. Mondal, P., Jain, M., Singh, D., Galford, G., DeFries, R. The relative importance of climatic and non-climatic factors in explaining spatio-temporal variability in Indian agriculture. The American Association of Geographers Annual Meeting. 3-7 April 2019, Washington DC. Oral Presentation.
 52. Qadir, A.[§], Mondal, P. Synergistic use of optical and Synthetic Aperture Radar (SAR) time series imagery for improved mapping of monsoon crops for small-scale farmers. The American Association of Geographers Annual Meeting. 3-7 April 2019, Washington DC. Poster Presentation.
 53. Walter, M.[§], Mondal, P. Evaluating buffer stress along a spectrum of land uses for wetland health rapid assessment in Delaware. The American Association of Geographers Annual Meeting. 3-7 April 2019, Washington DC. Poster Presentation.

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54. Mondal, P., McDermid, S. Forest degradation in South Asia: A vegetation trend analysis in the context of climate variability. American Geophysical Union Fall Meeting. 10-14 December 2018, Washington, D.C. Poster Presentation.
 55. Mondal, P., Md. Arif, Agrawal, I., Gallant, M., Singh, D., Fanzo, J., Remans, R., Wood, S., DeFries, R. Implications of agricultural intensification for diet and nutrition in central India. Central Indian Landscape Symposium. 14-17 December 2016, Nagpur, India. Oral Presentation.
 56. Mondal, P., Jain, M., Galford, G., DeFries, R. Coupled Effects of Climatic and Socio-economic Factors on Winter Cropping in India. American Geophysical Union Fall Meeting. 14-18 December 2015, San Francisco, California. Poster Presentation.
 57. Mondal, P., Jain, M., Galford, G., DeFries, R. Quantifying winter crop sensitivity to climate variability across agro-ecological zones in India. International Conference on Global Food Security. 11-14 October 2015, Ithaca, New York. Oral Presentation.
 58. Jain, M., Fishman, R., Mondal, P., Galford, G., Naeem, S., Modi, V., DeFries, R. Irrigation as an Adaptation Strategy to Climate Change: The Relative Influence of Groundwater and Canal Irrigation on Winter Crop Production and its Sensitivity to Weather Variability in India. American Geophysical Union Fall Meeting. 15-19 December 2014, San Francisco, California. Poster Presentation.
 59. DeFries, R., Mondal, P., Jain, M., and Galford, G., Climate Sensitivity of Cropping Intensity in India. NASA Synthesis Workshop on Land Use and Land Cover Dynamics in South and Southeast Asia. 3-4 November 2014, Kathmandu, Nepal. Oral Presentation.
 60. Mondal, P., Jain, M., DeFries, R., Galford, G., Small, C. Climate sensitivity of smallholder farmers across multiple agro-ecological zones in India. Global Land Project Open Science Meeting. 19-21 March 2014, Berlin, Germany. Oral Presentation.
 61. Mondal, P., Jain, M., DeFries, R., Galford, G., Small, C. Sensitivity of crop cover to inter-annual climate variability: Insights from two Indian agro-ecoregions. IUSSTF Indo-US bilateral workshop. 20-21 February 2014, Bengaluru, India. Oral Presentation.
 62. Mondal, P., Jain, M., Robertson, A., Galford, G., Small, C., DeFries, R. Winter crop sensitivity to inter-annual climate variability in central India. Kanha-Pench Landscape Symposium. 16-18 February 2014, Mocha, India. Oral Presentation.
 63. Mondal, P., Jain, M., DeFries, R., Galford, G., Small, C. Impacts of Changing Climate on Agricultural Variability: Implications for Smallholder Farmers in India. American Geophysical Union Fall Meeting. 9-13 December 2013, San Francisco, California. Poster Presentation.
 64. Mondal, P., Jain, M., DeFries, R., Galford, G., Small, C. Agricultural susceptibility to climate variability: Insight from two Indian agro-ecoregions. NASA Land-Cover and Land-Use Change Science Team Meeting. 2-4 April 2013, Rockville, Maryland. Poster Presentation.
 65. Jain, M., Small, C., Mondal, P., Galford, G., DeFries, R. Mapping Cropped Area of Smallholder Farms in South Asia. NASA Land-Cover and Land-Use Change Science Team Meeting. 2-4 April 2013, Rockville, Maryland. Poster Presentation.
 66. Mondal, P., DeFries, R., Jain, M., Robertson, A., Galford, G., Small, C. A multi-sensor approach to identify crop sensitivity related to climate variability in Central India. American Geophysical Union Fall Meeting. 3-7 December 2012, San Francisco, California. Poster Presentation.

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67. Jain, M., Mondal, P., Small, C., Galford, G., DeFries, R. 2012. Mapping cropping intensity of smallholder farms in South Asia: A comparison of MODIS, Landsat, and mixture model techniques. NASA Land-Cover and Land-Use Change Science Team Meeting. 3-5 April 2012, Rockville, Maryland. Poster Presentation.
 68. Mondal, P., Butler, B. and Kittredge, D. 2012. Impact of climate and land use change: How are America's private forests changing? The Association of American Geographers Annual Meeting. 24-28 February 2012, New York. Oral Presentation.
 69. Losey, K., Kittredge, D., Butler, B., Catanzaro, P., Mondal, P. 2011. Assessing Woodland Owner Education Programs in Massachusetts. Student Conference on Conservation Science New York. 11-14 October 2011, New York. Poster Presentation.
 70. Mondal, P., Southworth, J. and Fik, T. 2011. Comparison of ASTER-derived vegetation indices and surface temperature in detecting forest successions. US Regional Association of the International Association for Landscape Ecology Symposium. 3-7 April 2011, Portland, Oregon. Oral Presentation.
 71. Mondal, P. and Southworth, J. 2010. Exploring the utility of ASTER thermal bands in measuring protected area effectiveness. The Association of American Geographers Annual Meeting. 14-18 April 2010, Washington DC. Paper Presentation.
 72. Mondal, P. 2010. Enhanced Vegetation Index as a fragmentation indicator. US Regional Association of the International Association for Landscape Ecology Symposium. 4-8 April 2010, Athens, Georgia. Paper Presentation.
 73. Mondal, P. 2010. Using CA-Markov model to investigate the importance of national level policy in forest conservation. UF Graduate Student Council Interdisciplinary Research Conference. 3 February 2010, Gainesville, Florida. Paper Presentation.
 74. Mondal, P. and Southworth, J. 2010. Using CA-Markov model to investigate the importance of national level policy in forest conservation. Florida Society of Geographers Annual Meeting. 15-17 January 2010, Tampa, FL. Paper Presentation.
 75. Mondal, P. and Southworth, J. 2009. The role of government policies in protected area management: A case study from Central India. South Eastern Division of the Association of American Geographers Annual Meeting. 22-24 November 2009, Knoxville, Tennessee. Paper Presentation.
 76. Mondal, P. 2009. 30 Years of Protection: Examining a Park's Performance in Decreasing Forest Fragmentation in Central India. US Regional Association of the International Association for Landscape Ecology Symposium. 12-16 April 2009, Snowbird, Utah. Poster Presentation.
 77. Mondal, P. 2009. Identifying forest cover change in and around Pench Tiger Reserve, India. The Association of American Geographers Annual Meeting. 22-27 March 2009, Las Vegas, Nevada. Poster Presentation.
 78. Mondal, P. 2009. 30 years of protection: is Pench Tiger Reserve a success story? UF Graduate Student Council Interdisciplinary Research Conference. 12 February 2009, Gainesville, Florida. Poster Presentation.

CONFERENCE SESSIONS/SYMPOSIA/PANELS ORGANIZED/CHAired

- 2026 Resilience Implementations for Salt-INtruded Geographies (RISING) Mid-Atlantic Cross-State workshop. **Role: Workshop facilitator.**
- 2025 Delaware Data Science Symposium Break-out Session on “Unique Data Assets: Harnessing unique Delaware-region datasets for research, training, and funding”. **Role: Co-chair.**
 The American Association of Geographers Annual Meeting. “Coastal Landscapes in Transition.” 24-28 March 2025. **Role: Session organizer/Chair/Speaker.**
 The American Association of Geographers Annual Meeting. “Elevate the Discipline: Introduction to Media.” 24-28 March 2025. **Role: Invited panelist.**
- 2024 The Global Land Programme Open Science Meeting. “Coastal Landscapes in Transition.” 4-8 November 2024. **Role: Session chair/Speaker.**
 Salinity-Affected Lands in Transition (SALT) Conference. “Landscape Evolution.” 11-12 June 2024. **Role: Conference Co-organizer/Session Chair.**
- 2023 The American Association of Geographers Annual Meeting. “Women in Remote Sensing.” 23-27 March 2023. **Role: Invited panelist.**
- 2022 The American Association of Geographers Annual Meeting. “From Food to Diet and Nutrition in Geographies of Food and Agriculture.” 25 February-1 March 2022. **Role: Invited panelist.**
 The American Association of Geographers Annual Meeting. “Agricultural Geography: Mechanization and Irrigation.” 25 February-1 March 2022. **Role: Session Chair/Speaker.**
- 2019 The American Association of Geographers Annual Meeting. “Agriculture and Food Systems: Interdisciplinary Perspectives I-III.” 3-7 April 2019, Washington DC. **Role: Co-organizer.**
- 2018 American Geophysical Union Fall Meeting. “Global Vegetation and Land Surface Dynamics in a Changing Climate.” 10-14 December 2018, Washington, D.C. **Role: Co-convenor/Co-chair.**
 Annual Rutgers Climate Symposium. “Food Security and Climate Change.” 14 November 2018, Rutgers University, New Jersey. **Role: Plenary panelist.**
- 2017 NASA DAAC workshop at the Ecological Society of America Annual Meeting. “Ecology from Space: How Can NASA Remote-Sensing Data Inform Your Research?” 6-11 August 2017, Portland, Oregon. **Role: Co-organizer/Speaker.**
- 2016 Central Indian Landscape Symposium. “Future of water, Climate, and Agriculture.” 14-17 December 2016, Pench Tiger Reserve, India. **Role: Co-organizer/Co-chair/Speaker.**
- 2014 Indo-US bilateral workshop. “Adaptation of rural communities to climate change: Bridging the gap between academia and community workers and identifying research needs.” 20-21 February 2014, Bengaluru, India. **Role: Co-organizer/Leader.**
- 2013 American Geophysical Union Fall Meeting. “Improving the Understanding of Climate Variability and Change in Agriculture: AgMIP, Tropical Farm Adaptation, and Related Research I-III.” 9-13 December 2013, San Francisco, California. **Role: Co-convenor/Co-chair.**

WORKSHOPS AND PROFESSIONAL TRAINING

- 2026 RISING-Mid-Atlantic cross-state workshop. 18 February 2026. **Role: Moderator.**
- 2024 Women's Leadership Online Certificate Program. **Role: Selected participant.**
- 2023 Elevate the Discipline in Climate and Society. 14-18 August, 2023. **Role: 1 of the 15 competitively selected scholars across the US and West Indies.**
- 2021 Leadership in STEM Fields: Increasing Leadership from Historically Underrepresented Groups. 29 October 2021. **Role: Invited Participant.**
- 2020 AgMIP 8 Virtual Webshop: Food Systems, Shocks, and Actions. 13-15 October 2020. **Role: Participant.**
- University of Delaware Center for Teaching and Assessment of Learning (CTAL) virtual Summer Institute on Teaching. 3 June 2020. University of Delaware. **Role: Participant.**
- 2019 University of Delaware Center for Teaching and Assessment of Learning (CTAL) Summer Course Design Institute. 11-13 June 2019. University of Delaware. **Role: Selected participant.**
- 2018 NSF Fall 2018 Grants Conference. 8-9 November 2018. New Orleans, Louisiana. **Role: Selected participant.**
- Early Career Geoscience Faculty Workshop. University of Maryland. 22-27 July 2018. College Park, Maryland. **Role: Selected participant.**
- 2017 NASA and World Resources Institute workshop. GPM Agricultural Application Workshop. 1 August 2017, Washington D.C. **Role: Participant.**
- 2013 Dinamica: Landscape Dynamics Modeling. University of Vermont. 20-23 August 2013, Burlington, Vermont. **Role: Participant.**
- 2011 GIS Tools for Analyzing Dynamic Landscapes. US Regional Association of the International Association for Landscape Ecology Symposium. 3 April 2011, Portland, Oregon. **Role: Participant.**
- 2010 NSF "On the Cutting Edge: Preparing for an Academic Career in the Geosciences" Workshop. 29 July – 1 August 2010, Stanford University, California. **Role: Participant.**
- Land Surface Phenology. US Regional Association of the International Association for Landscape Ecology Symposium. 5 April 2010, Athens, Georgia. **Role: Participant.**
- 2009 What is Landscape Ecology up to in the Climate Change Debate? US Regional Association of the International Association for Landscape Ecology Symposium. 14 April 2009, Snowbird, Utah. **Role: Participant.**
- 2007 Airborne GPS and Inertia in Support of Triangulation and Orientation of Airborne Framing and Push broom Sensors. American Society for Photogrammetry and Remote Sensing Annual Conference. 8 May 2007, Tampa, Florida. **Role: Participant.**
- 2006 DOEACC A-level professional training in computer applications (training equivalent to Post Graduate Diploma in Computer Application), Kolkata, India. **Role: Participant.**

FIELDWORK

- 2026 Preliminary field visit in Rio Grande Valley, Texas, USA
- 2025 Community engagement visits in Delaware, USA
- 2022 Remote sensing field data collection in Maryland, USA
- 2019 Remote sensing field data collection in Vietnam
- 2016, Semi-quantitative food frequency questionnaire survey in central India
2015
- 2013, Remote sensing field data collection and social survey for post-doc project in Madhya
2012 Pradesh, India
- 2008 Remote sensing field data collection for PhD project in Maharashtra, India
Ecological survey and questionnaire-based social survey in Yucatan, Mexico
- 2003, Geological survey in structurally complex zones in Jharkhand and Maharashtra, India
2001

TEACHING (*UG=Undergraduate; G=Graduate; UG/G=both*)

YEAR (Fall/ Spring/ Summer)	INSTITUTE	COURSE TITLE	COURSE LEVEL	STUDENT NUMBERS	MODALITY
F 2026	University of Delaware	Introduction to GIS (with 2 lab sections)	UG	37	In person
		Proseminar in the Environment	UG	18	In person
Su 2026	University of Delaware	Environmental Internship	UG	1	Hybrid
F 2025	University of Delaware	Introduction to GIS (with 2 lab sections)	UG	54	In person
		Remote Sensing of Environment (with lab)	UG/G	30	In person
Su 2025	University of Delaware	Environmental Internship	UG	1	Online
S 2025	University of Delaware	Proseminar in the Environment	UG	13	In person

		Environmental Internship/Hinors Dir Research	UG	3	Hybrid
F 2024	University of Delaware	Introduction to GIS (with 2 lab sections)	UG	54	In person
F 2023	University of Delaware	Introduction to GIS (with 2 lab sections)	UG	51	In person
		Remote Sensing of Environment (with lab)	UG/G	22	In person
		Environmental Internship	UG	2	Online
		Honors: Directed Research (Independent Study)	UG	1	Online
		Pre-candidacy study (Independent Study)	G	1	In person
S 2023	University of Delaware	Introduction to GIS (with 2 lab sections)	UG	42	In person
		Special Problem (Independent Study)	G	1	In person
		Doctoral Dissertation (Independent Study)	G	1	Online
F 2022	University of Delaware	Introduction to GIS (with 2 lab sections)	UG	54	Hybrid
		Special Problem (Independent Study)	G	2	Online
		Master's Thesis (Independent Study)	G	1	Online
		Doctoral Dissertation (Independent Study)	G	1	Online
Su 2022	University of Delaware	Environmental Internship	UG	2	Online
		Special Session Research	G	4	Online
S 2022	University of Delaware	Special Problem (Independent Study)	G	2	Online
		Doctoral Dissertation (Independent Study)	G	1	Online
F 2021	University of Delaware	Introduction to GIS (with 2 lab sections)	UG	52	Hybrid

		Remote Sensing of Environment (with lab)	UG/G	21	Hybrid
		Special Problem (Independent Study)	G	2	Online
		Master's Thesis (Independent Study)	G	1	Online
S 2021	Pre-tenure Research Leave				
	University of Delaware	Research	G	1	Online
		Master's Thesis (Independent Study)	G	1	Online
F 2020	University of Delaware	Introduction to GIS (with 2 lab sections)	UG	47	Online
		Remote Sensing of Environment (with lab)	UG/G	31	Online
		Research	G	1	Online
		Special Problem (Independent Study)	G	1	Online
		Master's Thesis (Independent Study)	G	1	Online
Su 2020	University of Delaware	Research	G	1	Online
S 2020	University of Delaware	Introduction to GIS (with 2 lab sections)	UG	56	Online after first month
		Special Problem (Independent Study)	G	1	Online after first month
		Research	G	1	Online after first month
		Master's Thesis (Independent Study)	G	2	Online after first month
F 2019	University of Delaware	Introduction to GIS (with 2 lab sections)	UG	43	In person
		Know Your Satellites (with lab)	UG/G	19	In person

		Master's Thesis (Independent Study)	G	2	In person
S 2019	University of Delaware	Introduction to GIS (with 2 lab sections)	UG	43	In person
		Master's Thesis (Independent Study)	G	1	In person
		Special Problem (Independent Study)	G	1	In person
F 2018	University of Delaware	Introduction to GIS (with 2 lab sections)	UG	48	In person
S 2018	California State University, Bakersfield	GIS Applications in Geoscience (with lab)	UG/G	14	Online after first month
F 2017	City University of New York - City College	Introduction to Ecology & GIS	G	17	In person
F 2016	City University of New York - City College	Physical Geography	G	15	In person
S 2016	Columbia University	Introduction to Landscape Analysis (with lab; co-teach)	UG/G	13	In person
F 2015	City University of New York - City College	Physical Geography	G	18	In person
F 2008	University of Florida	Physical Geography	UG	129	In person
S 2008	University of Florida	Physical Geography	UG	62	In person
F 2007	University of Florida	Physical Geography	UG	113	In person

GUEST LECTURES (UG=Undergraduate; G=Graduate; UG/G=both)

YEAR	INSTITUTE	COURSE TITLE	COURSE LEVEL
2025	University of Delaware	Prelude to Geography	G
2024	University of Delaware	Prelude to Geography	G
		Earth Systems: Science and Policy	UG
		Introduction to the Environment	UG

2023	University of Delaware	Prelude to Geography	G
		Ocean (Atmosphere) Remote Sensing	G
2022	University of Delaware	Ocean (Atmosphere) Remote Sensing	G
		Prelude to Geography	G
2021	University of Delaware	Prelude to Geography	G
2020	Osher Institute of Lifelong Learning	Environmental Issues	G
	University of Delaware	Prelude to Geography	G
2019	University of Delaware	World Regional Geography	UG
		Prelude to Geography	G
2018	University of Delaware	Prelude to Geography	G
	California State University, Bakersfield	Principles of Nutrition	G
2013	Columbia University	Global Assessment and Monitoring Using Remote Sensing	UG/G
2010	University of Florida	Remote Sensing	UG/G
2010	University of Florida	Regional Geography	UG

GRADUATE ADVISEES (*Dissertation/Thesis committee chair = 10; Committee member = **18**)

2026 – **Keylen Lucero Garcia*** (PhD in Geography expected 2031)

Aarti Arora (PhD in Geography expected 2029)

2025 – **Andrew Callahan*** (MS in Geography expected 2027)

Alana Ginsburg* (MS in Geography expected 2027)

Lauren Hollinger* (MS in Geography expected 2027)

John Uponi (PhD in Geography expected 2029)

Keihan Hassan Zadeh Kermanshahi (PhD in Energy and Environmental Policy expected 2027; "From past lessons to future visions: The evolution of growth management in Sussex county, Delaware")

2023 – **Bhoktear Khan** (Advanced to candidacy; "Climate extremes, cropland expansion, and nutrition in Nigeria"; graduated Summer 2026)

2022 – **Manan Sarupria*** (PhD in Geography; "The salty saga: A coastal landscape's response to saltwater intrusion"; graduated Summer 2025)

Nicolas Al Fahel (Advanced to candidacy; "Integrated footprint of food: The case study of the poultry industry in the US"; PhD in Energy and Environmental Policy expected 2027)

Deanna Edwing (MS in Oceanography; "Characterizing coastal flooding in the Delaware Bay region using neural networks and Sentinel-1 imagery"; graduated Summer 2023)

Matthew Shatley (MS in Geography; "Spatially and temporally explicit model to predict solar radiation using machine learning"; graduated Spring 2024)

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- 2021 – **Dustin Braden*** (MS in Geography; "Quantifying uncertainty of forest extent estimates in Mexico by comparing satellite-derived land and tree cover products"; graduated Winter 2023)
- Kevin Oluoch** (MS in Plant and Soil Sciences; "A suite of agronomic factors can offset the effects of climate variability on rainfed maize production in Kenya"; graduated Summer 2022)
- 2020 – **Matthew Walter*** (PhD in Geography; "Data-driven exploration of urban green space disparities in the Eastern USA"; graduated Summer 2024)
- Dongyang Wei** (PhD in Geography; "Challenges and solutions towards achieving resilient and sustainable food supply chains"; graduated Summer 2024)
- Piyush Mehta** (PhD in Geography; "Irrigation and the global food-water nexus: Patterns, trade offs, and opportunities for sustainability"; graduated Fall 2024)
- Hanan Abou Ali** (Advanced to candidacy; "Remote sensing and machine learning for crop mapping and classification in Nigeria"; PhD in Geography expected 2026)
- Nicholas Butler** (MS in Geography expected 2024; "A climatic analysis of mid-Atlantic lightning strikes 1987-2019")
- 2019 – **Vishruta Yawatkar*** (MS in Data Science; "An evaluation of remotely sensed images and machine learning algorithms for accurate mapping of fine-scale landscape patterns in the eastern USA"; graduated Summer 2021)
- Gina Maskell** (PhD in Agriculture, University of Kassel, Germany/Potsdam Institute for Climate Impact Research, Germany; "On the use of remote sensing and household data to track progress on autonomous adaptation: Evidence in a coffee farming system"; graduated Spring 2024)
- 2018 – **Abdul Qadir*** (MS in Data Science; "Synergistic use of microwave and optical satellite data for monsoon cropland mapping in India"; graduated Spring 2020)
- Matthew Walter*** (MS in Geography; "Application of field methods and remotely sensed satellite and aerial imagery in analyzing relationships between human activities and wetland health in the State of Delaware"; graduated Spring 2020)
- Emma Stell** (MS in Geography; "Spatial inconsistencies influence global estimates of soil respiration: How can we improve global predictions?"; graduated Fall 2020)
- Elizabeth Smith** (PhD in Plant and Soil Sciences; "Data driven estimates and associated uncertainty of soil nitrogen and respiration at regional and global scales"; graduated Summer 2024)
- Israt Jahan** (PhD in Geography; "Urban Heat Island (UHI) development and mitigation measures in three Bangladesh cities: Dhaka, Chattogram, and Sylhet"; graduated Summer 2024)
- Mehmet Altingoz** (PhD in Water Science and Policy; "Water diplomacy in post-Soviet geographies: Analyzing multiple scales of cooperative potential"; graduated Spring 2022)
- Ricardo Llamas Barba** (PhD in Plant and Soil Sciences; "Multi-scale satellite-derived soil moisture modeling across space and time"; graduated Fall 2023)

POSTDOCTORAL MENTEE

2022 Hemadri Bhusan Amat (India; co-mentored with Harini Nagendra, Santonu Goswami, and Sonali McDermid)

2019 Enze Jin (co-mentored with C. Archer)

UNDERGRADUATE/HIGH SCHOOL MENTEE

2026 Sienna Wong (Senior thesis; Major: Environmental Science)

Josephine Petrak (WiCCED-Salt intern; Major: Environmental Science)

Isabelle Vavala (WiCCED-Salt intern; Major: Environmental Science)

Kevin He (RISCC intern; Johns Hopkins University)

2025 Ivanka Gibson (UD, ENSC 464 project)

Adam Wert (UD, ENSC 464 project)

2024 Peyton Smith (Cornell University; Major: Environment and Sustainability, Information Science)

Ben Levine (Environmental Science major for DESG application)

Andrew Callahan (Environmental Science major for DESG application)

2022 Alexia Hernandez (NASA DEVELOP team)

Clay Hays (NASA DEVELOP team)

Matthew Borden (NASA DEVELOP team)

Arina Morozova (NASA DEVELOP team)

2021 Isabella Ventimiglia (DE Space Grant and UDRF-funded undergraduate intern; Major: Geography)

Saumya Soni (UD High School Scholar Program)

2020 Antigone Goetz (UD Summer Scholars Program)

Isabella Ventimiglia (UD Summer Fellow Program; Major: Geography)

Rebecca King (UD EPSCoR project; Major: Geography)

2019 Jessica Clark (CENFOODS intern; Major: Environmental Science)

Justin Czech (Major: Environmental Science)

Nicole Flowerhill (Major: Environmental Science)

Callie McFadden (CENFOODS intern; Major: Environmental Science)

Elizabeth Nguyen (University of Maryland; Major: Environmental Science and Technology)

Undergraduate advisee: ~150 (Environmental Science majors per year, co-advised with V. Yancy)
8 (before becoming Environmental Science Program Director)

AWARDS TO ADVISEES/MENTEES (total = 36)

2026 Lauren Hollinger; American Association of Geographers (AAG) International Geographic Information Funds (IGIF) Scholarship Award

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- 2025 Manan Sarupria; U. Delaware Departmental Excellence in Research Award
- 2024 Matthieu Ahouangbenon; U. Delaware Doctoral Fellowship for Excellence
 Manan Sarupria; 2nd place in graduate student poster competition, Delaware Environmental Institute (DENIN) Research Symposium
 Matthew Walter; U. Delaware Departmental Excellence in Research Award
- 2023 Manan Sarupria; American Association of Geographers (AAG) Landscape Specialty Group Conference Registration Award
 Manan Sarupria; Delaware Environmental Institute (DENIN) Pitch:90 Fan Favorite
 Matthew Walter; U. Delaware Graduate College Travel Award
 Matthew Walter; U. Delaware Data Science Institute Travel Award
 Manan Sarupria; U. Delaware Graduate College Travel Award
 Matthew Walter; U. Delaware Doctoral Fellowship for Excellence
 Matthieu Ahouangbenon; U. Delaware Departmental Excellence in Teaching Award
 Matthieu Ahouangbenon; U. Delaware Graduate College Travel Award
 Matthew Walter; U. Delaware Graduate College Travel Award
- 2022 Matthew Walter; NASA DE Space Grant Graduate Fellowship
 Dustin Braden; U. Delaware Departmental Excellence in Research Award
 Matthew Walter; 2nd place in graduate student poster competition, Delaware Environmental Institute (DENIN) Research Symposium
 Matthieu Ahouangbenon; U. Delaware Climate Change Hub Graduate Research Enhancement Grant
 Matthieu Ahouangbenon; American Association of Geographers (AAG) Human Dimensions of Global Change (HDGC) Specialty Group Graduate Student Research Award
 Matthieu Ahouangbenon; American Association of Geographers (AAG) Africa Specialty Group Graduate Research Grant Award
 Matthew Walter; Ecological Society of America 2022 Katherine S. McCarter Graduate Student Policy Award
- 2021 Matthew Walter; NASA DE Space Grant Graduate Fellowship
 Isabella Ventimiglia; NASA DE Space Grant Summer Internship
 Saumya Soni; NSF EPSCoR Project WiCCED High School Scholar Internship
- 2020 Matthew Walter; 1st place in paper presentation competition, The Middle States Division of the American Association of Geographers Meeting
 Abdul Qadir; Ta Liang Memorial Award, The American Society for Photogrammetry and Remote Sensing (ASPRS)

- Matthew Walter; U. Delaware Departmental Excellence in Teaching Award
- Abdul Qadir; U. Delaware Departmental Excellence in Research Award
- 2019 Matthew Walter; 1st place in paper presentation competition, The Middle States Division of the American Association of Geographers Meeting
- Abdul Qadir; 2nd place in paper presentation competition, The Middle States Division of the American Association of Geographers Meeting
- Abdul Qadir; 1st place in poster competition, International Statistical Institute/ESRI Student Competition
- Matthew Walter; Mather Graduate Fellows Research Award
- Matthew Walter; 1st place in poster competition, Human and Climate Series III: Water Management and Policy: Local and Global Perspectives Symposium
- Gina Maskell (unofficial mentee); Geo.X Young Academy PhD Fellowship, Germany
- Jessica Clark; UD Center for Food Systems and Sustainability undergraduate internship
- Callie McFadden; UD Center for Food Systems and Sustainability undergraduate internship

SERVICE & LEADERSHIP

PROFESSION

- 2026 **Committee member:** Miller and Burrill Awards, American Association of Geographers
- Guest Editor:** Focus Collection on “Agroecosystems Characterization using Advanced Remote Sensing” in “Environmental Research: Food Systems”
- 2024 **Lead Author:** Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)
- Nominated/selected faculty for leadership training:** UD Women’s Leadership Initiative Certificate Program
- 2023 – **Editor:** Earth Interactions (an American Meteorological Society journal)
- Editorial Board Member:** Environmental Research: Food Systems (an IOPScience journal)
- Proposal reviewer:** Harry R. Hughes Center for Agro-Ecology, U. Maryland College Park
- Conference student competition judge:** American Association of Geographers Remote Sensing Specialty Group
- 2022 **Science Advisor:** NASA DEVELOP program
- Ad hoc proposal reviewer:** National Science Foundation (NSF)
- 2020 – **Associate Editor:** CABI Agriculture & Bioscience (Section: Food Security, Nutrition & Planetary Health)
- 2022
- 2019 – **Editorial Board member:** Land
- 2021
- 2019 **Panel reviewer:** National Science Foundation (NSF) Geography and Spatial Sciences Doctoral Dissertation Research Improvement (2 different cycles)

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- Ad hoc proposal reviewer:** NSF Geography and Spatial Sciences Doctoral Dissertation Research Improvement
- Undergraduate research presentation abstract reviewer:** Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)
- Guest co-Editor:** Land (Special Issue: Global Vegetation and Land Surface Dynamics in a Changing Climate)
- Invited member:** Global Land Programme Social Media Team
- 2019, **Outstanding Student Presentation Award judge:** American Geophysical Union (AGU) fall
2018 meeting
- 2018 **Ad hoc proposal reviewer:** NSF International Research Experiences for Students (IRES), Track III
- 2018, **Organizing committee member:** Central Indian Landscape Symposium
2016
- 2016 **Panel reviewer:** NASA NESSF-Carbon Cycle and Ecosystems Program
Founder/member: Network for Conserving Central India
Guest co-Editor: Current Science (Special Section on Livelihood impacts and adaptation of rural communities to climate change in India)
- 2014 **PI and co-organizer:** Indo-US bilateral workshop
Organizing committee member: Kanha-Pench Landscape Symposium
- 2013 **Panel reviewer:** NASA Terrestrial Ecology Program
- 2010 – **Manuscript reviewer** (in alphabetical order): CABI Agriculture and Bioscience; Climatic Change; Earth Interactions; Ecological Complexity; Environmental Management; Environmental Research: Food Systems; Environmental Research Letters; Forest Ecology and Management; Geocarto International; Global Food Security; International Journal of Remote Sensing; ISPRS Journal of Photogrammetry and Remote Sensing; Journal of Geophysical Research: Biogeosciences; Journal of Land Use Science; Landscape Ecology; Landscape and Urban Planning; Land Use Policy; Nature Communications; Nature Sustainability; One Earth; PeerJ; PNAS; PLoS One; Remote Sensing; Remote Sensing Applications: Society and Environment; Science Advances; Scientific Data; Scientific Reports; Society & Natural Resources; Water Resources Research.

UNIVERSITY

- 2026 **Associate Director:** MS in Data Science
Departmental representative: UD Chapter of the American Association of University Professors (AAUP)
- 2025 **Associate Director:** MS in Data Science
Invited panelist: UD Advance P&T panel for TT Assistant Professors

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- Departmental representative:** UD Chapter of the American Association of University Professors (AAUP)
- 2024 **Invited speaker:** NASA Associate Administrator (Science Mission Directorate) Nicky Fox visit
Associate Director: MS in Data Science
- Departmental representative:** UD Chapter of the American Association of University Professors (AAUP)
- Departmental representative:** UD Faculty Senate
- Invited participant:** UD Advance study on P&T process
- 2023 **Search Committee Member:** UD Vice-President for Research, Scholarship, and Innovation
- Departmental representative:** UD Faculty Senate
- Departmental representative:** UD Chapter of the American Association of University Professors (AAUP)
- Invited speaker:** Workshop with the Engineers R&D Center, US Army Corps of Engineers
- Invited panelist:** Second Presidential Sustainability and Climate Teach-In, U. Delaware Office of Sustainability and Gerard J. Mangone Climate Change Science and Policy Hub
- Invited panelist:** Earth Week Research Discussion panel, U. Delaware Students for the Environment (S4E) and Earth, Ocean, and Environment Club
- Invited speaker:** Climate Scholars Program
- 2021 **Mentor:** a group of 4 junior colleagues for the UD Faculty Achievement Program (modeled after National Center for Faculty Development and Diversity (NCFDD))
- Panelist:** UD's Womxn of Color Discussion Series: Asian American Identity and Asian Identity in America
- Speaker:** UD NSF Career Academy
- 2019 **Faculty search committee member:** U. Delaware Data Science Institute
- Committee member:** U. Delaware Data Science Institute Fall Symposium Organizing Committee
- Postdoctoral researcher search committee member:** U. Delaware Department of Environmental Science & Engineering
- Speaker:** U. Delaware MS in Data Science New Student Orientation
- Speaker:** U. Delaware MS in Data Science Launch Event
- 2016 **Mentor:** Columbia's Lamont-Doherty Earth Observatory High School Student Intern Mentoring Program

COLLEGE

- 2025 **Volunteer:** Decision Day (prospective undergraduate students)

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- Volunteer:** Open house for prospective graduate students (virtual)
- 2024 **Attendee:** Student Success Center Retreat
- Volunteer:** Blue and Golden Saturday
- Volunteer:** Decision Day (prospective undergraduate students)
- 2023 **Presenter:** Dean's Advisory Council
- Presenter:** Blue and Golden Saturdays (prospective undergraduate students)
- Volunteer:** Open house for prospective graduate students (virtual)
- Volunteer:** Virtual Decision Day (prospective undergraduate students)
- Volunteer:** Destination Delaware (prospective undergraduate students)
- Guest lecturer:** MAST 606 (Ocean (Atmosphere) Remote Sensing)
- Attendee:** Eco-entrepreneurship Fellows Pitch Day
- 2022 **Volunteer:** SACNAS conference recruitment booth (virtual)
- Volunteer:** Virtual visits for Distinguished Scholars (prospective undergraduate students)
- Volunteer:** Blue and Golden Saturday
- Volunteer:** Decision Day (prospective undergraduate students)
- 2021 **Volunteer:** Open house for prospective students from local high schools (virtual)
- Volunteer:** Open house for prospective graduate students (virtual)
- Volunteer:** Graduate School Information Panel for Current CEOE Undergraduate Students (virtual)
- Volunteer:** Blue and Golden Saturday
- 2019 **Faculty search committee member:** U. Delaware School of Marine Science and Policy
- Volunteer:** Blue and Golden Saturday
- Volunteer:** U. Delaware recruitment booth at the AGU fall meeting
- 2018 **Invited panelist:** U. Delaware Department of Geological Sciences grad school Q&A panel
- Invited panelist:** U. Delaware "Ph.D. to Postdoc to Faculty" panel

DEPARTMENT

- 2025- **Member:** Academic Council
- 2024 **Chair:** Departmental Strategic Plan Committee
- Contributor:** Workload and merit metric document
- Presenter:** Departmental seminar series
- 2023 **Faculty search committee member:** two continuing track positions - environmental studies and meteorology and climate science
- Volunteer:** Virtual Decision Day (prospective undergraduate students)
- 2021- **Director:** Environmental Science Program (Undergraduate Major)
- 2025 Responsible for all majors (current enrollment=157) in the largest undergraduate program in the department

- Led programmatic changes
- Designed and launched multiple fundraising efforts
- Established paid internship opportunities using newly raised gift funds

2019- **Co-organizer**, U. Delaware Department of Geography and Spatial Sciences Seminar Series
2020

2018 **Committee member**: U. Delaware Department of Geography GIS lab renovation committee

2009 **Graduate Representative**: U. Florida Geography

Liaison person between Geography and U. Florida Graduate Student Council

Co-organizer: U. Florida Geography new student orientation events and departmental participation in several national meetings

COMMUNITY SERVICE AND PUBLIC OUTREACH

2023 **Blog post writer**: Nature Communities – [Coastal farmlands across US mid-Atlantic turning too salty for traditional farming](#)

2022 **Invited expert talk**: "Sustainable dietary choices" for [Leadwire](#)

2021 **Invited contributor**: International Society for Photogrammetry and Remote Sensing Student Consortium (ISPRS SC) newsletter

Contributor: [First-Gen Geoscience: A Community Blog](#)

2020, **Scientist volunteer pen-pal**: Letters to a Pre-Scientist Program
2019

2020, **Volunteer**: DE Coast Day
2018

2017 **Invited panel scientist**: 4th Annual Women in Science Night at East Side Community High School, New York

2015 **Blog post writer**: Cornell University's Economics that Really Matters – [Can we climate-proof global food systems?](#)

Blog post writer: Columbia University's State of the Planet – [Help for Indian small farmers in a changing climate](#)

Volunteer: [Columbia University's Lamont-Doherty Open House](#)

2006 **Volunteer**: Florida Museum of Natural History Fossil Hunt

PROFESSIONAL MEMBERSHIP

2018 – Global Land Programme

2012 – American Geophysical Union

2011 – CHANS-Net: International Network of Research on Coupled Human and Natural Systems

2008 – American Association of Geographers