

Amrika Deonarine

PROFESSIONAL PREPARATION

Ph.D., Civil and Environmental Engineering,
Duke University, Durham, NC, USA May 2011
Dissertation: *Sources and biogeochemical transformations of mercury in aquatic ecosystems*

B.S., Civil and Environmental Engineering,
Florida International University, Miami, FL, USA May 2005

APPOINTMENTS

Texas Tech University
Assistant Professor Jan. 2019 - present

University of Bern, Institute of Geography
Postdoctoral Researcher Oct. 2016 – Jul. 2018

United States Geological Survey,
Mendenhall Postdoctoral Fellow Oct. 2011- Dec. 2013

Duke University,
Civil & Environmental Engineering Postdoctoral Fellow Jun. - Oct. 2011

PUBLICATIONS

10. **Deonarine, A.**, Kolker, A., Foster, A.L., Doughten, M.W., Holland, J.T. & Bailoo, J.D. (2016). Arsenic speciation in bituminous coal fly ash and transformations in response to redox conditions. *Environmental Science & Technology*, 50 (11), 6099–6106. DOI: [10.1021/acs.est.6b00957](https://doi.org/10.1021/acs.est.6b00957).
9. **Deonarine, A.**, Kolker, A., Doughten, M. (2015). Trace Elements in Coal Ash. USGS Publications, <https://pubs.er.usgs.gov/publication/fs20153037>.
8. **Deonarine, A.**, Hsu-Kim, H., Zhang, T., Cai, Y. & Richardson, C.J. (2015). Legacy source of mercury in an urban stream-wetland ecosystem in central North Carolina, USA. *Chemosphere*. DOI: [10.1016/j.chemosphere.2014.12.038](https://doi.org/10.1016/j.chemosphere.2014.12.038)
7. **Deonarine, A.**, Bartov, G., Johnson, T.M., Ruhl, L.S., Vengosh, A. & Hsu-Kim, H. (2013). Environmental Impacts of the Tennessee Valley Authority Kingston Coal Ash Spill. 2. Effect of Coal Ash on Methylmercury in Historically Contaminated River Sediments. *Environmental Science & Technology*, 47(4), 2100–2108. DOI: [10.1021/es303639d](https://doi.org/10.1021/es303639d)
6. Bartov, G., **Deonarine, A.**, Johnson, T.M., Ruhl, L.S., Vengosh, A. & Hsu-Kim, H. (2013). Environmental Impacts of the Tennessee Valley Authority Kingston Coal Ash Spill. 1. Source Apportionment Using Mercury Stable Isotopes. *Environmental Science & Technology*, 47(4), 2092–2099. DOI: [10.1021/es303111p](https://doi.org/10.1021/es303111p)
5. Lowry, G.V., Espinasse, B.P., Badireddy, A.R., Richardson, C.J., Reinsch, B.C., Bryant, L.D., Bone, A.J., **Deonarine, A.**, Chae, S., Therezien, M., Colman, B.P., Hsu-Kim, H., Bernhardt,

- E.S., Matson, C.W., Wiesner, M.R. (2012). Long-Term Transformation and Fate of Manufactured Ag Nanoparticles in a Simulated Large Scale Freshwater Emergent Wetland. *Environmental Science & Technology*, 46(13), 7027–7036. DOI: [10.1021/es204608d](https://doi.org/10.1021/es204608d)
4. **Deonarine, A.**, Lau, B.L.T., Aiken, G.R., Ryan, J.N., & Hsu-Kim, H. (2011). Effects of humic substances on precipitation and aggregation of zinc sulfide nanoparticles. *Environmental Science & Technology*, 45(8), 3217–3223. DOI: [10.1021/es1029798](https://doi.org/10.1021/es1029798)
 3. Ruhl, L.S., Vengosh, A., Dwyer, G.S., Hsu-Kim, H., & **Deonarine, A.** (2010). Environmental Impacts of the Coal Ash Spill in Kingston, Tennessee: An Eighteen-Month Survey, *Environmental Science & Technology*, 44(24), 9272-9278. DOI: [10.1021/es1026739](https://doi.org/10.1021/es1026739)
 2. Ruhl, L.S., Vengosh, A., Dwyer, G.S., Hsu-Kim, H., **Deonarine, A.**, Bergin, M., & Kravchenko, J. (2009). Survey of the potential environmental and health impacts in the immediate aftermath of the coal ash spill in Kingston, Tennessee. *Environmental Science & Technology*, 43(16), 6323-6333. DOI: [10.1021/es900714p](https://doi.org/10.1021/es900714p)
 1. **Deonarine, A.**, & Hsu-Kim, H. (2009). Precipitation of mercuric sulfide nanoparticles in NOM-containing water: Implications for the natural environment. *Environmental Science & Technology*, 43(7), 2368-2373. DOI: [10.1021/es803130h](https://doi.org/10.1021/es803130h)

SYNERGISTIC ACTIVITIES

Journal Reviewer: Applied Geochemistry, Coal Combustion and Gasification Products, Environmental Science and Technology, Frontiers in Environmental Science

Grant Reviewer: National Science Foundation, USA

Session Convener:

Environmental Impacts of Coal Utilization. Geological Society of America Annual Fall Meeting 2013, Denver, CO, USA. October 27-30.

Memberships include:

Geological Society of America

American Geophysical Union

American Chemical Society

Association of Environmental Engineering and Science Professors

Awards include:

US Geological Survey Employee Award for Superior Performance Dec. 2014

Mendenhall Postdoctoral Fellowship, US Geological Survey Aug. 2011

Utku Graduate Student Paper Award, Duke University Mar. 2010

Ellen C. Gonter Graduate Student Award, American Chemical Society Mar. 2009

Pratt-Gardener Fellowship, Duke University Aug. 2005
