

# Will A. Overholt

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 Personal Website: <http://waooverholt@github.io>

## EDUCATION

Georgia Institute of Technology, Atlanta, GA  
**Pursuing Ph.D in Bioinformatics (4.0 GPA)** Since August 2012  
 [Area of Concentration: Bioinformatics / Microbial Ecology]  
 [Tentative Thesis: "Linking the metabolic potential of indigenous microbial communities with the degradation of oil-hydrocarbons in marine sediments impacted by the Deepwater Horizon well blowout"]

Florida State University, Tallahassee, FL  
**B.S. Biology with Honors – *summa cum laude* (4.0 GPA)** April 2010  
 [Area of Concentration: Marine Biology]  
 [Honors Thesis: "Characterization of biostimulated microbial communities in uranium and nitrate contaminated groundwater and subsurface sediments"]

## AWARDS AND FELLOWSHIPS

Leland Jackson Award – Outstanding PhD Student in Bioinformatics August 2017  
 1<sup>st</sup> Place Presentation Award – Southeastern Biogeochemistry Symposium, GA Mar 2017  
 Student Presentation Award – Ocean Sciences Meeting, HI Feb 2014  
**National Science Foundation Graduate Research Fellowship** May 2012  
 American Society for Microbiology Student Travel Grant May 2012  
 Outstanding Senior Scholar Award Spring 2010  
 [Given to the top 10 graduation seniors]

John Mark Caffrey Scholarship Fall 2009  
 [In support of undergraduate research]

Hank W. Bess Honors Award Spring 2008  
 [Honors thesis award supporting undergraduate research]

Florida State University Freshman Scholarship Fall 2006  
 [4 year scholarship, \$9600, for maintaining GPA]

## PROFESSIONAL EXPERIENCE

Chinunkha Community Day Secondary School, Chitipa, Malawi  
**Peace Corps Volunteer – Education, Malawi** June 2011 – March 2012  
 [Taught high school math and physical science to Malawian students]

Florida State University, Tallahassee, FL  
**Research Assistant/Lab Tech** Jan. 2008 – April 2011  
 [Microbial community examination through cultivation-independent molecular methods]

University of Florida, Fort Pierce, FL  
**Lab Assistant** May 2006 – Aug. 2006  
**May 2007 – August 2007**  
 [Helped in designing and constructing re-circulation systems for research based aquaculture]

## ACTIVITIES

Gordon Research Seminar Co-Chair July 2017  
 Applied and Environmental Microbiology (meeting in 2019)

Conference Organizer, "South Eastern Biogeochemistry Symposium"  
Atlanta GA, 30312

March 2015

#### PUBLICATIONS AND PAPERS

Huettel, M., **W.A. Overholt**, J.E. Kostka, C. Hagan, J. Kaba, W.B. Wells, S. Dudley. [Accepted]. Degradation of Deepwater Horizon oil buried in a breathing Florida beach. *Marine Poll Bull.*

Joye, S., S. Kleindienst, J.A. Gilbert, K. Handley, P. Weisenhorn, **W.A. Overholt**, J.E. Kostka. [2016]. Responses of microbial communities to hydrocarbon exposures. *Oceanography*, 29(3): 136 - 149.

**Overholt, W.A.**, K.P. Marks, I.C. Romero, D.J. Hollander, T.W. Snell, J.E. Kostka. [2016]. Hydrocarbon degrading bacteria exhibit a species specific response to dispersed oil while moderating ecotoxicity. *Appl. Environ. Microbiol*, 82(2): 518 – 527.

**Overholt, W.A.**, R. Diaz, E. Rosskopf, S.J. Green, W.A. Overholt. [2015]. Deep characterization of the microbiomes of *Calophya* sp. (Hemiptera: Calophyidae) gall-inducing psyllids reveals the absence of plant pathogenic bacteria and three dominant endosymbionts. *Plos One* 10(7): e0132348.

Rodriguez-R L.M., **W.A. Overholt**, C. Hagan, M. Huettel, J.E. Kostka, K.T. Konstantinidis. [2015]. Microbial community successional patterns in beach sands impacted by the Deepwater Horizon oil spill. *ISME J* 9(9): 1928-1940.

Brooks, G.R., R.A. Larson, P.T. Schwing, I. Romero, C. Moore, G.J. Reichart, T. Jilbert, J.P. Chanton, D. Hastings, **W.A. Overholt**, K.P. Marks, J.E. Kostka, C.W. Holmes, B. Flower, D. Hollander. [2015]. Sedimentation Pulse in the NE Gulf of Mexico Following the 2010 DWH Blowout. *Plos One* 10(7): e0132341.

Canion A., **W.A. Overholt**, J.E. Kostka, M. Huettel, G. Lavik, M.M.M Kuypers. [2014] Temperature response of denitrification and anaerobic ammonium oxidation rates and microbial community structure in Arctic fjord sediments. *Environ. Microbiol* 16(10): 3331 – 3344.

Jasrotia, P., S.J. Green, A. Canion, **W.A. Overholt**, O. Prakash, D. Wafula, D. Hubbard, D.B Watson, C.W. Schadt, S.C. Brooks, J.E. Kostka. [2014]. Watershed scale fungal community characterization along a pH gradient in a subsurface environment co-contaminated with uranium and nitrate. *Appl. Environ. Microbiol*, 80(6): 1810-1820.

**Overholt, W.A.**, S.J. Green, K.P. Marks, R. Venkatraman, O. Prakash, J.E. Kostka. [2013]. Draft genome sequences for oil-degrading bacterial strains from beach sands impacted by the Deepwater Horizon oil spill. *Genome Announcements* 1(6): e01015-13.

Lewis, D.E., A. Chauhan, J.R. White, **W.A. Overholt**, Green, S.J., Jasrotia, P., Wafula, D., Jagoe, C. [2012]. Microbial and geochemical assessment of bauxitic un-mined and post-mined chronosequence soils from Mocho Mountains, Jamaica. *Microbial Ecology* 64(3): 738-749.

Kostka, J.E., O. Prakash, **W.A. Overholt**, S.J. Green, G. Freyer, A. Canion, J. Delgardio, N. Norton, T. Hazen, M. Huettel. [2011]. Hydrocarbon-Degrading Bacteria and the Bacterial Community Response in Gulf of Mexico Beach Sands Impacted by the Deepwater Horizon Oil Spill. *Appl. Environ. Microbiol* 77(22): 7962-7974.

Green, S.J., O. Prakash, P. Jasrotia, **W.A. Overholt**, E. Cardenas, D., Hubbard, J.M. Tiedje., D.B. Watson, C.W. Schadt, S.C. Brooks, J.E. Kostka. [2011]. Denitrifying bacteria from the genus *Rhodanobacter* dominate bacterial communities in the highly contaminated subsurface of a nuclear legacy waste site. *Appl. Environ. Microbiol* 78(4): 1039-1047.

Prakash, O., S.J. Green, P. Jasrotia, **W.A Overholt**, A. Canion, D.B. Watson, S.C. Brooks, J.E. Kostka. [2011]. Description of *Rhodanobacter denitrificans* sp. nov., isolated from nitrate-rich zones of a contaminated aquifer. *Int J Syst Evol Microbiol* 62(10): 2457-2462.

Gihring, T.M., G. Zhang, C.C Brandt, S.C Brooks, J.H. Campbell, S. Carroll, C.S. Criddle, S.J. Green, P. Jardine, J.E. Kostka, K. Lowe, T.L. Mehlhorn, **W.A Overholt**, D.B Watson, Z. Yang, W-M Wu, C.W. Schadt. [2011]. A limited microbial consortium is responsible for extended bioreduction of Uranium in a contaminated aquifer. *Appl. Environ. Microbiol.* 77(17): 5955-5965.

#### BOOK CHAPTERS

Ionescu, D., **W.A. Overholt**, M.D.J. Lynch, J.D. Neufeld, A.Naqib, S.J. Green. [2016]. Microbial Community Analysis Using High-throughput Amplicon Sequencing. *Manual of Environmental Microbiology*, 4<sup>th</sup> Edition. ASM Press.

#### POSTERS AND PRESENTATIONS

**Overholt, W.A.**, E. Mercado, X. Sun, I.C. Romero, D.J. Hollander, K. Konstantinidis, M. Huettel, J.E. Kostka. [2017]. *Response of the microbial nitrogen cycle to weathered oil buried in submerged coastal sands*. GRC-AEM, Holyoke, MA. July 2017. [presenting author: poster]

**Overholt, W.A.**, E. Mercado, X. Sun, I.C. Romero, D.J. Hollander, K. Konstantinidis, M. Huettel, J.E. Kostka. [2017]. *Microbial response to weathered oil buried in submerged coastal sands*. SBS, Athens, GA, Apr. 2017. [presenting author: oral]

**Overholt, W.A.**, E. Mercado, X. Sun, I.C. Romero, D.J. Hollander, K. Konstantinidis, M. Huettel, J.E. Kostka. [2017]. *Microbial processes in submerged coastal sands impacted with weathered oil*. GoMRI, New Orleans, LA, Feb 2017. [presenting author: oral]

**Overholt, W.A.**, P. Schwing, D.J. Hollander, J.E. Kostka. [2017]. *Predicting benthic microbial communities throughout the Gulf of Mexico and hindcasting impacts from the DWH*. GoMRI, New Orleans, LA, Feb 2017. [presenting author: oral]

Huettel, M. **W.A. Overholt**, J.E. Kostka, C. Hagan, J. Kaba, W. Wells, S. Dudley. [2017]. *Degradation of Deepwater Horizon Oil buried in a Florida sandy beach*. GoMRI, New Orleans, LA, Feb 2017.

Wells, W., **W.A. Overholt**, J. Kaba, I. Bociu, P. Brignole, J.E. Kostka, M. Huettel. [2017]. *Effect of deposited DWH oil and phytoplankton on oxygen consumption and dissolved inorganic carbon production in Gulf of Mexico shallow shelf and shelf slope sediments*. GoMRI, New Orleans, LA, Feb 2017.

Wagner, K., **W.A. Overholt**, H. Urakawa, M. Huettel, J.E. Kostka. [2017]. *Buried crude oil alters the microbial nitrogen cycle in submerged coastal sands*. GoMRI, New Orleans, LA, Feb 2017.

Fridrik, E., P. Schwing, R. Larson, G. Brooks, D. Hollander, S. Lincoln, **W.A. Overholt**. [2017]. *Planktic foraminiferal records of MOSSFA and petrocarbon incorporation following the Ixtoc-1 and DWH blowouts*. GoMRI, New Orleans, LA, Feb 2017.

**Overholt, W.A.**, K. Carlson, P. Schwing, D.J. Hollander, J.E. Kostka. [2016]. A predictive understanding of deepsea benthic microbial communities in the Gulf of Mexico. ISME, Montreal, Aug 2016. [presenting author: poster]

**Overholt, W.A.**, K. Carlson, P. Schwing, D.J. Hollander, J.E. Kostka. [2016]. *A large scale comparison of seafloor microbial communities in regions impacted by two Gulf of Mexico Mega Spills*. GoMRI, Tampa, FL, Feb 2016. [presenting author: oral]

**Overholt, W.A.**, D.W. Hastings, K.P. Marks, D.J. Hollander, J.E. Kostka. [2015]. *Distribution of deep sea sedimentary microbial populations across large spatial scales in the northern Gulf of Mexico*. 115 ASM General Meeting, June 2015. [presenting author: oral]

**Overholt, W.A.** D.J. Hollander, J.E. Kostka. [2015]. *Distribution of deep sea sedimentary microbial populations in the northern Gulf of Mexico*. SBS, March 2015. [presenting author: poster]

**Overholt, W.A.**, Schwing P.T., Larson, R.A., Romera, I.C., Hastings, D.W., Brooks, G.R., Hollander, D.J., Kostka, J.E. [2015]. *Elucidating the diversity of benthic microbial communities and foraminifera at the seafloor in the northern Gulf of Mexico*. GoMRI, Feb 2015. [presenting author: oral]

Hastings, D.W., Brooks, G., Schwing, P.T., Kostka, J.E., Larson, R.A., **Overholt W.A.**, Bartlett, T., Carr, B., Quinn, K.A., Selden, C., Romero, I., Hollander, D. [2015] *Surface sediments became more reducing following the BP Deepwater Horizon Blowout event*. GoMRI, Feb. 2015. [oral]

Shin, B., **Overholt, W.A.**, Chin, K., Kostka, J.E. [2015]. *Anaerobic hydrocarbon degradation by sedimentary microorganisms from the northern Gulf of Mexico*. GoMRI, Feb 2015. [oral]

Kostka, J.E., **Overholt, W.A.**, Gold, J., Deak, K., Dishaw, L., Shambloot, M., Breitbart, M., Hollander, D., Murawski, S. [2015]. *Genomic Research within C-IMAGE2: Cross Gulf Comparisons of Microbes to Megafauna Impacted by the Deepwater Horizon and Ixtoc Oil Discharges*. GoMRI Genomic Workshop, Feb 2015. [oral]

**Overholt, W.A.** [2014] *Deep sea sedimentary microbes in the Gulf of Mexico*. Georgia Tech Dept. of Biology Retreat, Oct 2014. [presenting author: oral]

**Overholt, W.A.** [2014] *The diversity of deep sea sediment microbes in the Northern Gulf of Mexico*. Deep-C All Hands Meeting, Sept, 2014. [presenting author: oral]

**Overholt, W. A.**, Marks, K.P., Rodriguez-R, L.M., Hagan, C., Kaba, J., Konstantinidis, K., Huettel, M., Kostka, J.E. [2014] *Oil in the beach: The microbial response to hydrocarbons parallels changes in oil chemistry*. South Eastern Biogeochemistry Symposium, April, 2014. [presenting author: oral]

**Overholt, W.A.**, Rodriguez-R, L.M., Konstantinidis, K., Huettel, M., Kostka, J.E. [2014] *A succession in microbial populations parallels the evolution of hydrocarbon chemistry in Gulf of Mexico beach sands contaminated by Macondo oil from the Deepwater Horizon discharge*. Ocean Sciences Meeting, Feb 2014. [presenting author: oral]

Sun, X., Shin, B., **Overholt, W.A.**, Marks, K.P., Chin, K.J. Kostka, J.E. [2014]. *Mapping of sedimentary microbial communities and identification of bioindicators for oil degradation in sediments of the northeastern Gulf of Mexico*. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Feb 2014. [poster]

**Overholt, W.A.**, Marks, K.P., Lin, X., Romero, I., Hollander, D., Chanton, J., Kostka, J.E. [2013]. *Ecological impacts of the Deepwater Horizon discharge on sedimentary microbial communities of Desoto Canyon, Gulf of Mexico*. Deep-C All Hands Meeting, Feb 2013. [presenting author: poster]

**Overholt, W.A.**, Marks, K.P., Rodriguez-R, L.M., Kaba, J., Hagan, C., Ruddy, B., Rodgers, R., Konstantinidis, K.T., Huettel, M., Kostka, J.E. [2013]. *A succession in microbial populations parallels the evolution of hydrocarbon chemistry in Gulf of Mexico beach sands contaminated by Macondo oil from the Deepwater Horizon discharge*. [2013]. Deep-C All Hands Meeting. [presenting author: poster]

**Overholt, W.A.**, Marks, K.P., Canion, A., Green, S.J., Delgardio, J., Kaba, J., Hagan, C., Wells, W., Norton, N., Huettel, M., Rodriguez-R, L.M., Konstantinidis, K.T., Kostka, J.E. [2013]. *The response of sedimentary microbial communities to oil contamination from the Deepwater horizon oil spill in the Gulf of Mexico*. 113<sup>th</sup> General Meeting for the American Society for Microbiology, New Orleans, LA. [presenting author: poster]

Rodriguez-R, L.M., **Overholt, W.A.**, Lin, X., Delgardio, J., Huettel, M., Kostka, J.E., Konstantinidis, K.T. [2013]. *Metagenomics insights into the effects of the Deepwater Horizon oil spill on indigenous microbial communities in beach sands*. 113<sup>th</sup> General Meeting for the American Society for Microbiology, Denver, CO. [presentation]

Hollander, D., Romero, I., Schwing, P., Larson, R., Watson, K., Zinzola, N., Murawski, S., Brooks, G., Hastings, D., Chanton, J., Kostka, J.E., **Overholt, W.A.** [2013]. *Elucidating the mechanism(s) of sedimentary oil deposition following the deepwater horizon blowout event in the N. Gulf of Mexico*. International Meeting of Organic Geochemistry.

**Overholt, W.A.**, Canion, A., Rodriguez-R, L-M., Hagan, C., Kaba, J., Wells, W.B., Konstantinidis, K.T., Huettel, M., Kostka, J.E. *The response of sedimentary microbial communities to the deposition of oil hydrocarbons for the Deepwater Horizon oil spill*. [2013]. Gulf of Mexico Oil Spill and Ecosystem Science Conference. [presenting author: oral]

**Overholt, W.A.**, Marks, K.P., Lin, X., Romero, I., Hollander, D., Chanton, J., Kostka, J.E. [2013] *Ecological impacts of the Deepwater Horizon discharge on sedimentary microbial communities of the Desoto Canyon, Gulf of Mexico*. Deep-C Consortia All hands Meeting [presenting author: poster].

Marks, K.P., **Overholt, W.A.**, Rodriguez-R, L-M., Konstantinidis K.T., Canion, A., Kaba, J., Hagan, C., Huettel, M., Kostka, J.E. [2013]. *Metagenomic insights supporting microbial community succession in contaminated Gulf beach sands*. Deep-C Consortia All Hands Meeting. [poster]

**Overholt, W.A.**, Canion, A., Green, S.J., V-Nostrand, J., Zhou, J., Huettel, M., Kostka, J.E. [2012]. *The response of sedimentary microbial communities to oil contamination from the Deepwater Horizon oil spill in the Gulf of Mexico*. Deep-C Consortia All Hands Meeting. [presenting author: poster]

Jasrotia, P., **Overholt, W.A.**, Green, S.J., Kostka, J.E. [2011]. *Watershed scale fungal community characterization along a pH gradient in Uranium and Nitrate contaminated subsurface*. 111<sup>th</sup> General Meeting for the American Society for Microbiology, New Orleans, LA. [poster]

**Overholt, W.A.**, White, J.R., Green, S.J., Lewis, D.E., Jasrotia, P., Wafula, D., Chauhan, A. [2011]. *Impacts of bauxite mining to soil microbiota and geochemistry along a restoration chronosequence*. 111<sup>th</sup> General Meeting for the American Society for Microbiology, New Orleans, LA. [poster]

Prakash, O., **Overholt, W.A.**, Green, S.J., Freyer, G., Canion, A., Delgardio, J., Norton, N., Huettel, M., Kostka, J.E. [2011]. *Isolation, enumeration, and characterization of oil-degrading bacteria and fungi from oiled gulf sediments impacted by the deepwater horizon spill*. 111<sup>th</sup> General Meeting for the American Society for Microbiology, New Orleans, LA. [presenting author: poster]

Green, S.J., Jasrotia, P., **Overholt, W.A.**, Prakast, O., Gihring, T.M., Jardine, P.M., Watson, D.B., Brown, S.D., Palumbo, A.V., Schadt, C., Brooks, S., Sul, W.J., Tiedje, J., Reed, J., Kostka, J.E. [2011]. *Why are Rhodanobacter spp. so dominant in a uranium-contaminated subsurface environment?* 111<sup>th</sup> General Meeting for the American Society for Microbiology, New Orleans, LA. [poster]

Hu, P., Wu, C.H., DeSantis, T., Jasrotia, P., Woo, H., Kearcher, K., Meiss, S., Torok, T., Taylor, L.D., **Overholt, W.A.**, Green, S., Andersen, G.L., Kostka, J.E., Hazen, T.C. [2011]. *Validation of MycoChip – A microarray for fungal community studies*. 111<sup>th</sup> General Meeting for the American Society for Microbiology. New Orleans, LA. [poster]

**Overholt, W.A.**, Green, S.J., Prakash, O., Gihring, T.M., Akob, D.M., Jasrotia, P., Jardine, P.M., Watson, D.B., Brown, S.D., Palumbo, A.V., Sul, W.J., Tiedje, J., Brooks, S., Kostka, J.E. [2010] *Denitrifying bacteria from the Genus Rhodanobacter are key members of microbial communities in the acidic, uranium-contaminated subsurface at Oak Ridge, TN*. 110<sup>th</sup> General Meeting for the American Society for Microbiology, San Diego, CA. [presenting author, poster]

Gihring, T.M., Schadt, C.W., Zhang, Z., Carroll, S., Lowe, K., Melhorn, T.L., Jardine, P., Watson, D., Brooks, S.C., Wu, W., Kostka, J.E., **Overholt, W.A.**, Green, S.J., Zhou, J., Zang, P., Nostrand, J.V. [2010] *Changes in microbial community structure and activity during amendment with long-term electron donor sources for bioreduction of groundwater contaminants*. 2010 Goldschmidt Conference. [poster]

**Overholt, W.A.** [2010]. *Characterization of biostimulated microbial communities in uranium and nitrate contaminated groundwater and subsurface sediments*. Honors thesis defense presentation, Tallahassee, FL. [presenting author, oral]

Gihring, T.M., Schadt, C.W., Zhang, G., Yang Z., Carroll, S., Lowe, K., Mehlorn, T.L., Jardine, P., Watson, D., Brooks, S.C., Wu, W., Kostka, J.E., **Overholt, W.A.**, Green, S.J., Zhou, J., Zhang P., Nostrand, J.V. [2010]. *Changes in microbial community structure during amendment with long-term electron sources for bioreduction of groundwater contaminants*. 5<sup>th</sup> Annual ERSP PI Meeting, Washington D.C. [poster]

**Overholt, W.A.**, Green, S.J., Wu, W., Watson, D.B., Jardine, P., Mehlhorn, T., Lowe, K., Carley, J., Carrol, S., Zhang, G., Schadt, C., Criddle, C., Kostka, J.E. [2009]. *Tracking long-term shifts in microbial community structure in an experimentally-manipulated subsurface environment exposed to high levels of radionuclides and nitrate*. 109<sup>th</sup> General Meeting for the American Society for Microbiology, Philadelphia, PA. [presenting author, poster]

**Overholt, W.A.** [2009]. *Uranium Remediation: Microbes at Work*. FSU Undergraduate Research Symposium, Tallahassee, FL. [presenting author: oral]

**Overholt, W.A.** [2008]. *Classifying microbial community shifts with the additional of ethanol amendments in radionuclide contaminated subsurface sediments*. FSU Marine Certificate Symposium. [presenting author: oral]

**Overholt, W.A.** [2008]. *Microbial community shifts associated with ethanol biostimulation at the Y-12 Uranium Enrichment Plant, TN*. Marine Lab Open House poster session. [presenting author: oral]

#### MEMBERSHIPS

International Society for Microbial Ecology – Student member	June 2016
American Society of Microbiology – Student member	April 2015
American Society for Limnology and Oceanography – Student member	October 2013
American Society for Microbiology – Student member	March 2013
Phi Beta Kappa Honors Society	January 2009
Honors Program at FSU	August 2006
Honors in the Major Program at FSU	January 2009