

Curriculum Vitae

Will A. Overholt

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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 deep sea 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

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

Conference Organizer, "South Eastern Biogeochemistry Symposium"

March 2015

Atlanta GA, 30312

PUBLICATIONS AND PAPERS

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

Overholt, W.A., K.P. Marks, I.C. Romero, D.J. Hollander, T.W. Snell, J.E. Kostka. [In Preparation]. Hydrocarbon degrading bacteria exhibit a species specific response to dispersed oil while moderating ecotoxicity.

Overholt, W.A., R. Diaz, E. Rosskopf, S.J. Green, W.A. Overholt. [In Press]. 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.

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. [In press]. Sedimentation Pulse in the NE Gulf of Mexico Following the 2010 DWH Blowout. Plos One.

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. Environmental microbiology 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. Applied and Environmental Microbiology 03423-13.

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 6: 01015-13.

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 63(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. Applied and Environmental Microbiology 77: 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. Applied and Environmental Microbiology 78: 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 ijs.0.035840-0

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. 77:5955-5965

BOOKS

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

POSTERS AND PRESENTATIONS

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., Shambloott, 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. 113th General Meeting for the American Society for Microbiology, New Orleans, LA. [presenting author: poster]

Rodriguez-R, L-M., **Overholt, W.A.**, Lin, X., Delgadito, 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*. 113th 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*. 111th 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*. 111th General Meeting for the American Society for Microbiology, New Orleans, LA. [poster]

Prakash, O., **Overholt, W.A.**, Green, S.J., Freyer, G., Canion, A., Delgadito, 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*. 111th General Meeting for the American Society for Microbiology, New Orleans, LA. [presenting author: poster]

Green, S.J., Jasrotia, P., **Overholt, W.A.**, Prakash, 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?* 111th 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*. 111th 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*. 110th 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*. [2010]. 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*. 5th 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*. 109th 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

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