

# Curriculum Vitae

## Andrew V. Ogram

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### PROFESSIONAL PREPARATION:

B.S. (Zoology), University of Florida, Gainesville, December, 1977.

M.S. (Soil Science), University of Florida, Gainesville, August, 1984.

Ph.D. (Microbiology), University of Tennessee, Knoxville, December, 1988.

### EMPLOYMENT:

1996-Present: Assistant, Associate, and Professor, Soil and Water Science Dept.,  
University of Florida, Gainesville, FL 32611-0290.

1990-1996: Assistant Professor, Department of Crop and Soil Sciences,  
Washington State University, Pullman, WA 99164-6420.

1988-1990: National Research Council Post-Doctoral Associate, US EPA,  
Gulf Breeze, FL.

### HONORS AND AWARDS (2011-2016)

- Global Initiative for Academic Network (GIAN) Visiting Professorship, Central University of Gujarat, India 2016.
- Anderson Faculty Honoree for undergraduate mentoring, 2012
- Best Teacher Award: Nanjing University Summer School on Environmental Remediation, 2012
- UF Research Foundation Professorship, 2009-2011

### STUDENT HONORS AND AWARDS (2011-2016)

- 2015: Elise Morrison, Francis Clark Award for Outstanding Graduate Student in Soil Biology, Soil Science Society of America.
- 2015 Best Poster Awards, SWSD Research Forum: Laibin Huang and Elise Morrison
- 2013-2017: Laibin Huang, awarded Water Institute Fellowship
- 2013-2014: Arnav Gupta, Undergraduate University Scholar
- 2013: Elise Morrison, Smithsonian Short Term Fellowship.
- 2013: Christopher Weidow, Best Thesis, Soil and Water Science Department (Diversity and distribution of aromatic ring dioxygenases among soil actinobacteria).

### RECENT PUBLICATIONS (2011-2016)

Bae, H.S., E. Morrison, J. Chanton, and A. Ogram. Distribution and expression of archaeal *nifH* links the nitrogen cycle to methane production in the Florida Everglades. Submitted.

Morrison, E., L. Lagos, A. Al-Agely, H. Glaab, W. Johnson, M. Jorquera, and A. Ogram. Mycorrhizal inoculation increases genes associated with phosphatase production and nitrification, and improved nutrient retention in soil. In revision.

Henson, W., L. Huang, A. Ogram, and W. Graham. Nitrate Transformation Mechanisms and Rates in an Unconfined Eogenetic Karst Aquifer across a Redox Gradient. *J. Geophys. Res. Biogeochem.* In press.

Kim, H., A. Ogram, and H.S. Bae. Effect of Nutrient Gradient on Relationships among

- Nitrification, Anammox and Denitrification in Florida Everglades Wetlands. Wetlands. In revision.
- Kim, H., H.S. Bae, K.R. Reddy, and A. Ogram. Distributions, abundances and activities of microbes associated with the nitrogen cycle in riparian and stream sediments of a North Florida tributary. *Water Res.* In press.
- Pathak A., Ashvini Chauhan, Jochen Blom, Karl J. Indest, Carina M. Jung, Paul Stothard, Gopal Bera, Stefan J. Green, and Andrew Ogram. 2016. Comparative Genomics and Metabolomics Reveals Peculiar Characteristics of *Rhodococcus opacus* strain M213 Particularly for Naphthalene Degradation. *PLOS One*, DOI:10.1371/journal.pone.0161032.
- Banik, C., W. Harris, A. Ogram, V. Nair. 2016. Carbon, iron, and aluminum responses to controlled water table fluctuations in sandy soil material. *J. Soil. Sediments.* DOI 10.1007/s11368-016-1444-z.
- Jorquera, M.A., F. Maruyama, A. Ogram, O. Navarrete, L. Lagos, N. Inostroza, J. Acuña, J. Rilling, M. de La Luz Mora. 2016. Rhizobacterial community structures associated with native plants grown in Chilean extreme environments. *Microbial Ecology*, DOI: 10.1007/s00248-016-0813-x.
- Acuña, J., Paola Durán, Lorena M. Lagos, Andrew Ogram, María de la Luz Mora, and Milko A. Jorquera. 2016. Bacterial alkaline phosphatase in the rhizosphere of plants grown in Chilean extreme environments. *Biol. Fert. Soils*, DOI 10.1007/s00374-016-1137-1
- Morrison, E., S. Newman, H.S. Bae, Z. He, J. Zhou, K.R. Reddy, and A. Ogram. 2016. Microbial genetic and enzymatic responses to an anthropogenic phosphorus gradient within a subtropical peatland. *Geoderma* 268:119-127.
- Bae, H-S., M. Elizabeth Holmes, Jeffrey P. Chanton, K. Ramesh Reddy, A. Ogram. 2015. Distribution, Activities, and Interactions of Methanogens and Sulfate Reducing Prokaryotes in the Florida Everglades. *Appl. Environ. Microbiol.*, 81:7431-7442.
- Lagos, L., F. Maruyama, P. Nannipieri, M. Luz Mora, A. Ogram, and M.A. Jorquera. 2015. Current overview on the study of bacteria in the rhizosphere by modern molecular techniques: a mini-review, *Journal of Soil Science and Plant Nutrition*, 15: 504-523.
- Weidow, C., H.S. Bae, A. Chauhan, and A. Ogram. 2015. Diversity and distribution of actinobacterial aromatic ring oxygenase genes across contrasting soil properties. *Microbial Ecology*, 69:676-683.
- Holmes, B.E., J. Chanton, M. Tfaily, and A. Ogram. 2015. CO<sub>2</sub> and CH<sub>4</sub> isotope compositions and production pathways in a tropical peatland. *Global Biogeochemical Cycles*, 29:1-18
- Bae, H.S., F.E. Dierberg, and A. Ogram. 2014. Syntrophs Dominate Sequences Associated with the Mercury Methylation-Related Gene *hgcA* in the Water Conservation Areas of the Florida Everglades. *Appl. Env. Microbiol.*, in press. *Featured on October 2014 (vol. 20) cover and recommended by Faculty of 1000.*
- Gohil, H., J. Thomas, and A. Ogram. 2014. Stimulation of anaerobic biodegradation of DDT and its metabolites in a muck soil: laboratory microcosm and mesocosm studies. *Biodegradation* 5:633-642.
- Holmes, B.E., J. Chanton, H.S. Bae, and A. Ogram. 2013. Effect of nutrient enrichment on d<sup>13</sup>C and the methane production pathway in the Florida Everglades. *J. Geophys. Res. Biogeosci.* 188:1-11.
- Zelege, J., Shui-Long Lu, Jian-Gong Wang, Jing-Xin Huang, Bo Li, Andrew Ogram, and Zhe-Xue Quan. 2013. Methyl coenzyme M reductase A (*mcrA*) gene-based investigation of methanogens in the mudflat sediments of Yangtze River estuary, China. *Microbial Ecology* 66: 257-267.
- Chauhan, A., A. Pathak, and A. Ogram. 2012. Phylogeny of methane oxidizing

- prokaryotes along a nutrient gradient in the Florida Everglades. *Microbial Ecol.* 64:750-759.
- Pathak, A., S. Greene, A. Ogram, and A. Chauhan. 2013. Draft Genome Sequence of *Rhodococcus opacus* strain M213 Shows a Diverse Catabolic Potential. *genomeA*, doi:10.1128/genomeA.00144-12.
- Inglett, K.S., H.S. Bae, K. Hatfield, and A. Ogram. 2011. *Clostridium chromireducens*, a novel chromium reducing bacterial species. *Int. J. Syst. Evol. Microbiol.* 61: 2626–2631.
- Ogram, A., A. Chauhan, K. Inglett, K. Jayachandran, and S. Newman. 2011. The role of microbial ecology in Everglades restoration. *CRC Crit. Rev. Environ. Sci.* 41, Sup. 1: 289-308.

#### **RECENT BOOK CHAPTERS**

- Gottlieb, A., J. Entry, A. Ogram, and K. Jayachandran. 2015. Importance of Microbiology to the Everglades Ecosystem. In: *Microbiology of the Everglades Ecosystem*, CRC Press, Orlando, FL. J. Entry, A. Gottlieb, K. Jayachandran, and A. Ogram, eds. pp 1-8.
- Weidow, C., and A. Ogram. 2015. The microbial ecology of mercury methylation and demethylation in the Florida Everglades. In: *Microbiology of the Everglades Ecosystem*, CRC Press, Orlando, FL. J. Entry, A. Gottlieb, K. Jayachandran, and A. Ogram, eds. pp. 375-385.
- Chauhan, A., A. Pathak, and A. Ogram. 2015. Ecological perspectives on the associations of syntrophic bacteria, methanogens, and methanotrophs in Florida Everglades WCA-2A soils. In: *Microbiology of the Everglades Ecosystem*, CRC Press, Orlando, FL. J. Entry, A. Gottlieb, K. Jayachandran, and A. Ogram, eds. pp. 389-412.
- Ogram, A., J. Entry, A. Gottlieb, K.R. Reddy, and K. Jayachandran. 2015. Closing thoughts on the role of microbial ecology in management and monitoring of the greater everglades ecosystem. In: *Microbiology of the Everglades Ecosystem*, CRC Press, Orlando, FL. J. Entry, A. Gottlieb, K. Jayachandran, and A. Ogram, eds. pp. 445- 454.
- Bae, H.S., and A. Ogram. *Molecular Ecology of Wetlands*. 2013. *Methods in Wetland Biogeochemistry*, American Society for Agronomy, Madison, WI. R. DeLaune, ed.
- Inglett, K.S., A.V. Ogram, and K.R. Reddy. 2013. Ammonium Oxidation in Wetland soils. *Methods in Wetland Biogeochemistry*, American Society for Agronomy, Madison, WI. R. DeLaune, ed.

#### **BOOKS EDITED:**

- *Microbial Ecology of the Everglades*. J. Entry, A. Gottlieb, K. Jayachandran, and A. Ogram, eds. CRC Press. To be published in 2014.

#### **RECENT INVITED PRESENTATIONS (2011-2016):**

- Ogram, A., HS Bae, and FE Dierberg. 2016. Diversity of mercury methylating processes in the Florida Everglades. 2<sup>nd</sup> International Conference on Biotechnology and the Environment. Pucon, Chile.
- Huang, L., A. Pain, C. Young, J. Martin, and A. Ogram 2016. Analysis of Microbial Communities Associated With Groundwater Discharge in the Yucatan Peninsula. American Water Resources Association, Orlando, FL.
- Ogram, A., 2014. The relationship between redox potential and bioavailability of nonpolar contaminants in sediments. Environmental Remediation Conference, Nanjing University, Nanjing, China. Unable to attend due to family emergency.
- Ogram, A. 2013. Life at the Bottom: the interplay between methanogens and sulfate

- reducers in a nutrient impacted wetland. 4<sup>th</sup> International Workshop on Advances in Science and Technology of Bioresources, Pucon, Chile.
- Ogram, A. 2013. The molecular ecology of phosphorus cycling under shifting nutrient limitations. 4<sup>th</sup> International Workshop on Advances in Science and Technology of Bioresources, Pucon, Chile.
- Ogram, A. 2013. Coupled Cycles and Mercury Transformations in Wetlands. Amity University, Noida, India.
- Ogram, A., H.S. Bae, J. Chanton, B. Huettel. 2013. Methanogenesis, Methanogens, and nutrient limitation in the Florida Everglades. ASLO Aquatic Sciences Meeting, New Orleans.
- Morrison, E., and A. Ogram. 2013. The composition and abundance of phosphorus-utilizing genes within Everglades microbial communities. Organic Phosphorus 2013, Panama City, Panama.
- Ogram, A. 2012. Life at the front: Methanogenesis and shifting nutrient limitations in the Everglades. INTECOL Wetlands, Orlando, FL.
- Ogram, A. 2012. The Microbial Ecology of Wetland Pollution. Nanjing University, Nanjing, China.

#### **RECENT CONTRIBUTED PRESENTATIONS (2011-2016)**

- Ogram, A., H.S. Bae, and F.E. Dierberg. 2016. A contrast in mercury methylating populations and processes at high (U3 in WCA-2A) and low (DB-15 in WCA-3A) sulfate locations in the Everglades. SETAC, Orlando, FL.
- Henson, W., W. Graham, L. Huang, and A. Ogram. 2015. Combining Push Pull Tracer Tests and Microbial DNA and mRNA Analysis to Assess In-Situ Groundwater Nitrate Transformations. AGU Fall Meeting, San Francisco.
- Pathak, A., A. Chauhan, P. Stothard, K. Indest, C. Jung, J. Blom, and A. Ogram. 2014. Catabolic potential of strain M213 revealed by whole genome comparative analysis. General Meeting of the American Society for Microbiology, Boston.
- Ogram, A. H.S. Bae, B. Huettel, and J. Chanton. 2013. The impacts of sulfate reducing prokaryotes on the dominant methanogenic pathway in a freshwater wetland. SAME 13: Aquatic Microbial Ecology Meeting, Stresa, Italy.
- Morrison, E., H.S. Bae, Z. He, J. Zhou, and A. Ogram. 2013. The response of microbial communities to shifting nutrient limitations in the Florida Everglades. FEMS Congress, Leipzig, Germany.
- Ogram, A., and H.S. Bae. 2013. Impacts of nitrogen limitation on the distribution and activities of methanogens in a nutrient impacted wetland. General Meeting of the American Society for Microbiology, Denver, CO.
- Bae, H.S., and A. Ogram. 2013. Anaerobic nitrogen fixation as a controlling factor of methanogenic assemblage composition in the Florida Everglades. ASLO Aquatic Sciences Meeting, New Orleans, LA.
- Bae, H.S., J. Joo, S. Schwartz, R. Delaune, J. White, and A. Ogram. 2013. Concentrations of microbial genes related to carbon and nitrogen cycling in Bay Jimmy, LA sediments. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA.
- Holmes, ME, J. Chanton, HS Bae, and A. Ogram 2012. Methane production and syntrophic acetate oxidation in the Florida Everglades. American Geophysical Union Winter Meeting, San Francisco.
- Bae, H.S., M. Huettel, J. Chanton, and A. Ogram. 2011. Shifting pathways for methanogenesis along a nutrient gradient in the Florida Everglades, USA. FEMS Congress, Geneva, Switzerland.
- Bae, H.S., M. Doron, K. Johnson, and A. Ogram. 2011. Distribution of nitrogen fixation

potential and *nifH* along a nutrient gradient in the Everglades. General Meeting of the American Society for Microbiology, New Orleans, LA.

Ogram, A., Z.Li, H.S. Bae, and J. Zhou. 2011. GeoChip 3.0 analysis of DNA from soils along a nutrient gradient in the Florida Everglades. General Meeting of the American Society for Microbiology, New Orleans, LA.

### **PROFESSIONAL ACTIVITIES (2011-2016)**

- Symposia organized and convened:
  - Greater Everglades Environmental Restoration Conference, 2015. (Mercury Cycling in the Everglades)
  - Joint Aquatic Sciences Meeting, Portland, OR, May 2014 (Insights into the Molecular Ecology of Phosphorus Biogeochemistry From Diverse Aquatic Ecosystems)
  - INTECOL Wetlands, Orlando, FL; July, 2012 (Linking microbial community structure with greenhouse gas emissions)
- Reviewed abstracts related to environmental health for annual meeting of American Public Health Association, 2016.
- USDA National Institute of Food and Agriculture Program Review:
  - Department of Land Resources and Environmental Sciences, Montana State University, Bozeman. 2012.
- Journal Editorial Boards:
  - Microbial Ecology
  - Applied and Environmental Microbiology
- Ad Hoc Reviewer: ISME Journal; Applied and Environmental Microbiology; Environmental Science & Technology; Soil Biology & Biochemistry; FEMS Microbiology Ecology; Biogeochemistry; Journal of Applied Microbiology; Current Microbiology; Applied Microbiology and Biotechnology.
- Proposal review panels:
  - National Science Foundation: DEB 2016; EPSCoR 2015, 2016.
- Promotion and Tenure Reviews:
  - Terry Gentry (Promotion to Professor), Agriculture Program, Texas A&M University, 2016.
  - Jyotsna Sharma (Tenure and Promotion), Plant and Soil Sciences, Texas Tech University 2014.
  - Brenda Tubana, (Tenure and Promotion) School of Plant, Environmental, and Soil Sciences, LSU, 2012.
  - Egbert Schwartz (Promotion to Professor), School of Biological Sciences, Northern Arizona University, 2012.
- External Dissertation Reviews
  - Sumana Das, West Bengal University of Technology, Kolkata, India. "Characterization of Marine Isolates with Protease Production." 2013.

### **CURRENT TEACHING RESPONSIBILITIES:**

- SWS4303/5305 Soil Microbial Ecology; every Fall Semester since 1996. Includes both On Campus and Distance Education sections.
- SWS4551/5551 Soil, Water, and Public Health. Every Summer Semester since 2015. Only Distance Education sections.

**SHORT COURSES ORGANIZED AND CONDUCTED:**

- Practical applications of mycorrhizal fungi, with Abid Al-Agely. University of Florida (Every summer since 2009; twice each summer for 2015, 2016).

**DEPARTMENT, COLLEGE, AND UNIVERSITY SERVICE (2011-2016)**Soil and Water Science Department

- 2009-2011: Graduate coordinator
- 2014-2017: SWSD representative, IFAS Faculty Assembly
- 2014-present: Member, chair's advisory committee

College (Institute of Food and Agricultural Sciences; IFAS)

- 2014-2017: Member, IFAS Faculty Assembly Infrastructure and Resources Committee (January –August 2016, acting chair; 2016-2017, chair)
- 2016-2017: Member, IFAS Faculty Assembly Executive Committee
- 2016-present: Advisory Committee, Dean for Research

University:

- 2016- present: Hydrologic Biology Representative, Hydrologic Sciences Academic Cluster Faculty Committee.
- 2016: Review Panel, Internal Competition for Pew Scholars Program in the Biomedical Sciences
- 2014: Review Panel, Internal Competition for UF Research Opportunity Seed Fund, Biology.
- 2011-2015: General Education Committee
- 2014: Distance Education Platform Working Group.