

COVEL “Papa Skalla” R. MCDERMOT

Dept. of Plant and Soil Sciences, University of Delaware, 531 S. College Avenue, 152 Townsend Hall, Newark,
DE 19716, (302) 423-9735, skalla@udel.edu/ mcdermot.covel@yahoo.com
Website: <https://3rdworldidea.wixsite.com/thinktwifwi>

CAREER OBJECTIVES:

To conduct novel, cutting-edge interdisciplinary scientific research (including collaboration) in urban ecosystems to better understand how the socio-ecological drivers influence the plants and other biophysical factors, and the conditions in urban systems as cities grow larger and become more disaster prone.

To effectively deliver courses and syllabi through lecturing, lab/ field demonstration and community extension projects involving Biology, Chemistry, Plant & Soil Science, Agriculture, and Urban Forestry Ecology.

To effectively perform managerial responsibilities, work in large groups and institution’s vision.

EDUCATION

2015 - 2019: PhD candidate in Plant and Soil Sciences, Urban Forestry Ecology (major)
University of Delaware - Newark, Delaware 19716.

Dissertation: Urbanization impacts on red maple (*Acer rubrum* L.) physiology, biochemistry and morphology in deciduous forests embedded in cities.

Dr. Tara Trammell, adviser

Program CGPA: 3.59

2015: Master of Science in Plant Science,
Delaware State University - Dover, Delaware 19901.

Thesis Research: Morphological, physiological and biochemical adaptations of *Petiveria alliacea* L (Guinea Hen weed) to prolonged drought and transient cold stresses.

Dr. Sathya Elavarthi, adviser

Program CGPA: 4.0

2012: Bachelor of Science in General Chemistry and Food Processing Technology (**First Class Honors**)

University of the West Indies, Mona campus - Kingston 7, Jamaica W.I.

Comprehensive Research project: Synthesis, spectroscopic and electrochemical studies of $[MCl_2(\eta^2-N, N-dpksc)]$ (M = Zn, Cd, Hg and dpksc = di-2-pyridylketone semicarbazone)

Professor Mohammad Bakir, adviser

Summer Research project: Extraction, isolation, purification and characterization of azelaic acid from *hyptis verticillata* L.

Professor Paul Reese, adviser

Program CGPA: 3.67

2007: Associate of Science degree in Natural Sciences
(**Credit**), General Chemistry and Biology major)
and Mathematics (minor)

College of Agriculture, Science and Education – Port Antonio, Portland, Jamaica W.I.

Research project: Synthesis and characterization of biodiesel from castor (*Ricinus communis*) seeds

Ms. Nicole White and Dr. Karlene Gavin, advisers

Program CGPA: 3.17

PEER-REVIEWED PUBLICATIONS

1. Rangelands as Carbon Sinks to Mitigate Climate Change: a review

McDermot C. and Elavarthi S. J Earth Sci Clim Change. **2014**, 5(8): 1-12

2. Spectroscopic, and electrochemical studies of [MCl₂ (η²-N, N-dpksc)] (M = Zn, Cd, Hg and dpksc = di-2-pyridylketone semicarbazone).

Mohammed Bakir., **Covel McDermot.**, Toni Johnson. Journal of Molecular Structure. **2013**, 1040: 221–225

MANUSCRIPTS AND REPORTS

1. Adaptation of *Petiveria alliacea* L. to prolong drought and transient cold stresses.

Covel McDermot, Osen Ayalewa, Kalpalatha Melmaieea, Tara-kay Jones, Sathya Elavarthia*

Manuscript in prep. 2019

2. Native red maples demonstrate acclimation to urban stress in temperate deciduous forests

Covel R. McDermot¹, Vince D’Amico III², Rakesh Minocha³, Tara L.E. Trammell*

Manuscript in prep. 2019

3. The relative importance of above- and below-ground conditions on red maple physiology and morphology in urban forests: a manipulative field experiment

Covel R. McDermot, Vince D’Amico, Tara Trammell*

Manuscript in prep. 2019

4. Impacts and Long-Term Recovery efforts of Hurricanes Maria and Irma on St. Thomas and St. John in the U.S. Virgin Islands: A Field Report for a Service-Learning Post-Disaster Reconnaissance.

Adegoke M¹, Álvarez Rosario G², Bui L³, Commodore-Mensah⁴, Derakhshan S⁵, Higgs I⁶, Lane Filali R⁷, **McDermot C**⁸, Nibbs F⁹ and Sylman S¹⁰

Manuscript report in prep. 2019

5. Food Security in St. Thomas: implementation of the African Keyhole Garden

Covel R. McDermot, Julian Jones, Isaiah Higgs, and Hans M. Louis-Charles

Manuscript report in prep.

NEWSLETTERS PUBLICATIONS

1. SURGE Visual Report, July 2019

2. 2019 SURGE Boots-On-the-Ground Experience (US Virgin Islands), June 2019

3. SURGE Wave Newsletter Volume 2 Issue 1 (Puerto Rico), May 2019

4. SURGE 2nd Annual Kick-Off Meeting Feb. 2019
5. Wave Volume 1 Issue 2, SURGE Newsletter Volume 1 Issue (US Virgin Islands), Dec. 2018
6. Wave Volume 1 Issue 1, SURGE Newsletter Volume 1 Issue Aug. 2018
7. SURGE Kick-off program Mar 3, 2018
<https://issuu.com/surgedisasters>

PROFESSIONAL WRITING

1. Legislator, Oracabessa High School Past Students' Association Constitution & Bylaws
2. Academic and Professional Career of Covell Rashique McDermot
<https://www.oracabessahighschool.com/academic-and-professional-career-of-covell-rashique-mcdermot>

PROFESSIONAL AND RESEARCH EXPERIENCE

2018/19: Food Security team leader, SURGENebraska Projects in the U.S. Virgin Islands and Puerto Rico

2018/19: Consultant, Food Security Home Gardening Project, St. Thomas Recovery Team (STRT), the Center for Disaster Philanthropy (CDP) 2017 Atlantic Hurricane Season Fund, St. Thomas, United States Virgin Islands

2015 – 2019: Graduate Research Scientist, Forest Fragments in Managed Ecosystems (FRAME) program, University of Delaware, Delaware 19716

2015 – 2019: Graduate Research Assistant, Trammell's Lab, University of Delaware, Delaware 19716

2013 – 2015: Graduate Research Assistant, Elavarthi's Lab, Delaware State University, Delaware 19901

2012 - 2013: Science Teacher, Islington High School, Islington, St. Mary, Jamaica, W.I.

2010 – 2012: Undergraduate Research Assistant, University of the West Indies, Kingston 7, Jamaica, W.I., Reese's Lab and Bakir's Lab

2007 - 2010: Science Teacher, Islington High School, Islington, St. Mary, Jamaica, W.I.

May - August 2007: Medical Technologist, Carib Medical Laboratory, Ocho Rios, St. Ann, Jamaica, W.I.

2005 - 2007: Cost Controller Trainee, Store Keeper and Receiving Clerk, Beaches Boscobel Hotel & Resorts, Boscobel, Oracabessa, St. Mary, Jamaica, W.I.

SCHOLARSHIPS AND AWARDS

2019: Mid-Atlantic Chapter of the Ecological Society of America Conference, Bowie, Maryland, Graduate Student Presentation- 1st Place

2019: Mid-Atlantic Chapter of the Ecological Society of America Conference, Bowie, Maryland- MA-ESA Student Travel Award

2018: Ecological Society of America Annual Conference, New Orleans, Louisiana, Ecological Society of America Biogeosciences Student Travel Award

2018: Mid-Atlantic Chapter of the Ecological Society of America Conference, Newark, NJ 07102, Graduate Student Poster - Honorary Mention

2018/19: The Minority Scholars from Underrepresented Groups in Engineering and the Social Sciences (SURGE) Capacity in Disaster Research, NSF Award

2015 – 2019: University of Delaware Graduate College and the Plant and Soil Science Department Graduate Student Award, University of Delaware, Newark, DE 19713

2013- 2015: College of Agriculture, Science & Technology, McIntire Stennis and Forestry Research Grant, Delaware State University, Dover, DE 19901

2012: American Foundation for the University of the West Indies (AFUWI) scholarship, University of the West Indies, Mona campus, Kingston, Jamaica W.I.

2011: Carreras Regional Scholarship, Carreras Jamaica Ltd. scholarship (Middlesex Runner-up), University of the West Indies, Mona campus, Kingston, Jamaica W.I.

2011: Organic Chemistry Grant. University of the West Indies, Mona campus, Kingston, Jamaica W.I.

2007 & 2006: Dr. Lyndale Bloomfield and Dr. Dawn Barrett Adams Awards, College of Agriculture, Science and Education, Port Antonio, Portland, Jamaica W.I.

2005: Program of Advancement Through Health and Education (PATH) Top Scholar Award, Ministry of Social Security, Kingston, Jamaica W.I.

2005: CSEC Trophy, Outstanding Performance in External Examinations, Oracabessa High School, Oracabessa, St. Mary, Jamaica W.I.

EXTRA-CURRICULAR INTERESTS AND PROFESSIONAL LEADERSHIP

2019: Team Leader, Food Security Project, Minority SURGE Capacity in Disaster Research in St. Thomas, US Virgin Islands (Boots-on-the-ground reconnaissance study), Surgedisasters

2019: Founder and Founder of the Oracabessa High School Past Students' Association Executive Committee Board, Oracabessa, St. Mary, Jamaica W.I.

2018: Group Leader, Minority SURGE Capacity in Disaster Research, in Puerto Rico- a Post-hurricane Maria reconnaissance study

2018: Group Leader, Minority SURGE Capacity in Disaster Research, in St. Thomas and St. John of the US Virgin Islands- a Post-hurricane Maria and Irma reconnaissance boots-on-the-ground (Ecological assessment)

2018: Participant, Minority SURGE Capacity in Disaster Research, Surgedisasters, University of Nebraska, Omaha, 6001 Dodge St., Omaha, NE 68182

2018/19: Newark City Council Senator elect, Graduate Student Government, University of Delaware, Newark, Delaware 19713

2018: Founder, Third World Ideas First World Innovation (TwiFwi), Human InnerBioEngineering (HIBE) rewiring

2017/18: Plant and Soil Science Senator, Graduate Student Government, University of Delaware, Newark, Delaware 19713

2015: Group Leader, Delaware State University Study Abroad Program- Agriculture, Tourism and Sustainability course, at CATIE, Cartago, Turrialba, 30501 Costa Rica

2013: Public Relation Officer, Caribbean Students' Association, Delaware State University, Dover, DE 19901

2010: Public Relation Officer, Chemical Society, University of the West Indies, Mona, Kingston, Jamaica W.I.

Curriculum Vitae July 26, 2019

2007 - 2010 & 2012/13: Form Teacher, Islington High School, Islington, St. Mary, Jamaica W.I.

2006: Faculty of Science Representative, Student Council Government, College of Agriculture, Science & Education, Port Antonio, Portland, Jamaica W.I.

2006: Vice President, Math Club, College of Agriculture, Science & Education, Port Antonio, Portland, Jamaica W.I.

2006: Science & Technology Coordinator, Fraternity for Advanced & Scientific Thinkers (FAST) Club, College of Agriculture, Science & Education, Port Antonio, Portland, Jamaica W.I.

VOLUNTEERISM

2019: Volunteer, Oracabessa High School Past Students' Association Constitution & Bylaws

2019: Volunteer, St. Thomas Recovery Team (STRT), Food Security Project, Home Garden model, St. Thomas, US Virgin Islands, the Center for Disaster Philanthropy (CDP) 2017 Atlantic Hurricane Season Fund

2019: Moderator, **ESAUSSEE** 2019, Kentucky Convention Center, Louisville, Kentucky-
pending

2019: Volunteer, Oracabessa High School Past Students' Association Executive Committee Board

2018: Biogeosciences Booth Volunteer, Ecological Society of America 2018 Annual Conference, New Orleans, Louisiana

2018: Volunteer, The William Averette Anderson Fund 2018 Disaster Dash 5k, 43rd Annual Natural Hazards Workshop, Omni Interlocken Hotel, Broomfield, Colorado

2018: Volunteer Recorder, 43rd Annual Natural Hazards Workshop, Omni Interlocken Hotel, Broomfield, Colorado

2018: Volunteer, Invasive Species Council, CANR Ag Day Symposium, University of Delaware, Newark, DE 19713

2018: GSG Student Forum Volunteer, 8th Annual Graduate Students' Forum, University of Delaware, Newark, DE 19713

2018/19: Surgedisasters, Minority SURGE Capacity in Disasters

2017: A/V Volunteer, Ecological Society of America 2017 Annual Conference, Portland, Oregon

2015: Group Leader Volunteer, Delaware State University Study Abroad Program on Agriculture, Tourism and Sustainability, CATIE, Cartago, Turrialba, Costa Rica

2014/15: Supervisor Volunteer, Farm Experience Program, Delaware State University, Dover, Delaware 19901

2011/12: Tutor, Academic Support Unit (Chemistry), UWI Mona, Jamaica W.I.

2013: Tutor, CSEC, SAT and GRE syllabuses

ABSTRACT, POSTER AND ORAL PRESENTATION

2019: Poster Presenter, 44th Annual Natural Hazards Research and Applications Workshop, Omni Interlocken Hotel Broomfield, Colorado

- 2019: Poster Presenter, CANR Ag Day Symposium, University of Delaware, Newark, DE 19713
- 2019: Poster Presenter, Mid-Atlantic Chapter of the Ecological Society of America Conference, Bowie State University, Bowie, MD
- 2018: Poster Presenter, SURGE Reconnaissance report, 43rd Annual Natural Hazards Workshop, Omni Interlocken Hotel Broomfield, Colorado
- 2018: Poster Presenter, CANR Ag Day Symposium, University of Delaware, Newark, DE 19713
- 2018: Poster Presenter, 8th Annual Graduate Students' Forum, University of Delaware, Newark, 19713
- 2018: Oral Presenter, Ecological Society of America, 103rd Annual Conference 2018, New Orleans Ernest N. Morial Convention Center, New Orleans, Louisiana
- 2018: Oral Presenter, PLSC800 Current Concepts in Plant Health, University of Delaware, Newark, DE 19716
- 2018: Poster Presenter, Mid-Atlantic Chapter of the Ecological Society of America Conference, Newark, NJ 07102
- 2018: Poster Presenter, 3rd DENIN Graduate Student Symposium, University of Delaware, Newark, DE 19716
- 2017: Poster Presenter, Ecological Society of America, Annual Conference 2017, Portland, Oregon
- 2015: Oral Presentation, Master's Thesis Defense, Delaware State University, Dover Delaware 19901
- 2014: Poster Presenter, Delaware State University 5th Annual Graduate Research Symposium, DSU, Dover Delaware 19901
- 2014: Representative, DSU Agriculture College, ASHS Annual Conference, Orlando, FL.
- 2012: Oral Presenter, Undergraduate Comprehensive Research Presentation, University of the West Indies-mona, Kingston, Jamaica W.I.

PROFESSIONAL GROUP MEMBERSHIP

- 2019: Minority SURGE Capacity in Disasters scholar
- 2019: Oracabessa High School Past Students' Association member
- 2019: St. Thomas Recovery Team (STRT) partner
- 2019: Ecological Society of America (ESA) member
- 2018: Ecological Society of America (ESA) member
- 2018: Minority SURGE Capacity in Disasters scholar
- 2017: Ecological Society of America (ESA) member

REFERENCE LIST:

Dr. Tara Trammell
Associate Professor of Urban Forestry
College of Agriculture and Natural Resources
University of Delaware
Newark, Delaware 19716
E-mail: ttram@udel.edu

Dr. Rakesh Minocha
Plant Physiologist / Biochemist
Biological and Environmental Influences on Forest Health and Productivity
USDA FS, Northern Research Station
271 Mast Road
Durham, NH, 03824
Phone: 603-868-7622
E-mail: rminocha@fs.fed.us

Dr. Sathya Elavarthi
Associate Professor of Plant Science
College of Agriculture and Related Sciences
Delaware State University,
Dover, Delaware 19901
E-mail: selavarthi@desu.edu

Dr. Dyremple Marsh
Dean, College of Agriculture and Related Sciences
Delaware State University,
Dover, Delaware 19901
E-mail: dmarsh@desu.edu

Professor Paul Reese
Dean, Faculty of Science and Technology
University of the West Indies, Mona campus
Kingston 7, St. Andrew, Kingston, Jamaica W.I.
E-mail: paul.reese@uwimona.edu.jm

Mr. Adolph Murdock
Justice of the Peace and Member of the Oracabessa High School Board,
Gibraltar District,
Oracabessa P.O., St. Mary, Jamaica W.I.
E-mail: adopph_mk@hotmail.com

Dr. Terri Norton
Associate Dean for Student Success & Strategic Initiatives
College of Engineering
Associate Professor, Civil and Environmental Engineering
Executive Director, Engineering Success Alliance
Bucknell University
Co-PI SURGE NSF INCLUDES
E-mail: trn005@bucknell.edu
Phone: 570-577-1800

Dr. Hans Louis-Charles
Assistant Professor at L. Douglas Wilder School of Government & Public Affairs, Virginia Commonwealth
University and Co-PI SURGE NSF INCLUDES
E-mail: louischah@vcu.edu
Phone: 531-329-5495