**EDUCATION**

## *The University of North Carolina at Greensboro, Greensboro, N.C.*

## Ph.D. Geography, Department of Geography, August 2010-December 2014 4.0 GPA

*Dissertation Title:* Land-Use/Land-Cover and Water Quality in the Cape Fear River Basin: Spatial-Temporal Relationships

*Independent Studies:* Urban Form and the Natural Environment: Some Key Indicators; Land-Use: The Urban-Rural Continuum

*Courses Completed:* Natural Resource Geography, GIS Seminar, Research Methods and Design, Digital Image Processing of Coastal Wetlands, Soil and Watershed Processes, Advanced Spatial Analysis, History of Geographical Thought, Urban Planning, Regional Planning, Remote Sensing

**Master of Arts in Liberal Studies:** Focus: **Environmental Policy and Conservation; Outdoor Recreation Stakeholder Theory,** May 2005 *Thesis Topic:* *Stakeholder Theory & Non-Motorized Boat Access to the Dan River in Stokes County, N.C.*

*North Carolina State University, Raleigh, N.C.*

**Bachelor of Arts in Political Science**, Concentration: **International Politics with focus on International Environmental Policy,** May 2003

**CURRENT & PRIOR ACADEMIC POSITIONS**

**Assistant Professor of Geography and Environmental Studies (2017 - Present), California State University at San Bernardino (CSUSB)** Courses Taught: dynamic Earth, Geography in the Elementary and Middle School Classroom, Environmental Sustainability in the 21st Century, Hydrology and Water Resources Mgt

* + Instruct students in fundamental environmental and geographical concepts including the spatial distribution human-environmental relationships through traditional and innovative methods including Google Earth and field activities.
  + Served on Environmental Sustainability GE Pathway curriculum development working group. Worked with faculty from multiple disciplines including English, Literature, Business, Geology and Economics to develop pathway goals and objectives.
  + Collaborated with the CSUSB Office of Sustainability to align Resilient CSUSB objectives with course offerings to provide faculty-students high impact practices on and off campus.
  + Work with Environmental Studies faculty to redesign program courses, internships and networking opportunities.
  + Serve as departmental library liaison to develop subject guides, research database and library guides that highlights prominent research tools to assist students with course projects and research endeavors.
  + Serve as faculty advisor to the CSUSB Water Resources Institute (WRI). Work directly with WRI Director to promote WRI programs and to expand existing and develop new program opportunities that serve CSUSB students and community members.
  + Developed ongoing partnerships with local, regional and state agencies including the INland Empire Resources Conservation District, Natural Resource COnservation Service (NRCS), and local and state water agencies to develop internship, volunteer and research opportunities for Geography and Environmental Studies majors.
  + Present current research at national, regional and local conferences that highlight water resource, environmental sustainability, and environmental education programs.

**Co-Chair for the *Resilient CSUSB* Sustainability Taskforce** (2017-Present) CSUSB

* + Work with CSUSB Office of Sustainability and Facilities Management Staff to develop and implement a comprehensive sustainabilty program for the CSUSB campus that includes staff, student, and faculty inclusion in developing campus programs and high impact practices in course curriculum.
  + Oversee three intern research projects that include achieving net positive and zero water, waste and procurement policies.
  + Develop programs and initiatives that support CSUSB President’s commitment to Second Nature Climate Resilience campus climate action plan.
  + Partner with the Office of Sustainability staff to develop campus education-based programs that educate community about sustainability issues - fall 2017 Resilient CSUSB launch - Spring (2018) Sustainability week.

**Assistant Professor of Geography and Environmental Studies (2015-2016), Adjunct Professor of Geography (2014-2015, 2017) Elon University** (Limited Term/Non-Tenure Track). Courses Taught: Global Physical Environments, Water Resources Mgt., Current Environmental Issues, World’s Regions, Watershed Mgt. and Policy, Environmental Science Labs, Introduction to Geographical Information Systems (GIS)

* + Instruct students in fundamental environmental and geographical concepts including the spatial distribution of weather and climatic conditions, physical geology, water quality, land-use policy, marine and terrestrial ecosystems, and basic research methods by using multiple media and inquiry-based learning strategies including field experiences, online resources, peer reviewed articles, and GIS.
  + Focus on human-environmental interactions between physical and cultural landscapes on multiple geographical scales from both historical and present perspectives. Introduce students to research modeling to identify present and future trends in environmental management and policy.
  + Incorporate current events and academic research through various media outlets including social media, videos, and atlas exercises using geospatial applications.
  + Facilitate formal science labs by working with teaching assistants and departmental faculty to ensure lab standards and content support departmental objectives.
  + Mentor students with developing career goals and objectives. Assist students with identifying courses, internships and research opportunities aimed at achieving career goals.
  + Collaborate with the Sustainability Office to provide innovative learning experiences for students including field experiences and lectures.

**Adjunct Professor of Biology, Salem College** (Spring 2012 – Present)Courses Taught: Introduction to Earth Science with lab, Introduction of Environmental Studies; Natural Resources Mgt. and Conservation with lab; Physical Geology and Soil Science, Water Resource Mgt. and Hydrology, Independent Studies

* + Instruct students in the fundamental concepts of environmental science and the research methods and theories that support historical and current methods of investigating human-environmental interactions.
  + Developed and taught new upper level courses and assisted program Chair with redesigning major from Environmental Studies track to Environmental Science track.
  + Develop inquiry-based labs that highlight and illustrate scientific concepts discussed in lecture through hands-on activities and field experiences.
  + Develop and implement research opportunities for students that center on assessing relationships between water quality and land-use through field experiences and geospatial analysis.
  + Facilitate various opportunities for students to interact with community members and resource agencies to gain a more well-rounded understanding of course content.
  + Collaborated with ENVS faculty to create and implement a Sustainable Salem campus outreach program to promote environmental awareness and departmental programs. Activities include guest speakers and tours of student-based service learning projects that promote sustainable living.
  + Coordinated course content with departmental faculty members to ensure it meets the goals and vision of the Environmental Studies Program and the Department of Biology.
  + Assess Senior seminar research projects and presentations; develop senior comprehensive exams.
  + Assist department head with completing annual program assessment reports to Dean of Students.
  + Advise students each semester using degree audits to ensure courses meet degree requirements.
  + Network with private and public organizations to develop internship opportunities for students and mentor students through the internship process.
  + Work with students, staff and faculty to implement numerous green infrastructure and environmental education projects. Projects include the installation of stormwater best management practices and a campus recycling pilot programs.
  + Procured grant funding to implement green infrastructure projects. Funded projects include a $3,500 state grant to install a cistern on campus and a Salem Sustainability Council mini-grant to install a rain garden.

**Lecturer, Introduction to Earth Science,** The University of North Carolina at Greensboro, Department of Geography (Spring 2011, Fall 2013, Spring 2014)

* + Taught students fundamental concepts by using multiple applications of technology, social media and inquiry-based learning experiences, including blackboard interfaces, guest speakers and multi-media, aimed at increasing students understanding of basic concepts taught in lectures.
  + Developed and implemented hands-on learning activities, lecture materials, syllabi, study guides, and exams.
  + Assisted students with establishing study groups and developing sustainable study habits.
  + Worked with the UNCG Early College program faculty to ensure students are meeting program expectations and learning objective.

**National Science Foundation Graduate Fellow, GK-12 STEM Program** the University of North Carolina at Greensboro (Summer 2011 – Spring 2013)

* + Collaborated with faculty in Biology, Chemistry, Education, and Geography Departments and Guilford County School teachers and administration to develop and implement STEM inquiry-based education and outreach programs for Title 1 schools in an effort to increase student’s knowledge and appreciation of multiple aspects of science as it relates to their annual curriculum (schools located in High Point, NC).
  + Partnered with community organizations to develop long-term educational resources and events for students, teachers and the community.
  + Designed and implemented water quality testing standards and procedures for weekly water quality monitoring program. Duties included: managing sampling technicians, data analysis and database management, and disseminating information in the classroom and to the public.
  + Presented annual program achievements including research endeavors to the UNCG Faculty Senate and UNCG Board of Directors.
  + Partnered with Portland State University, NSF GK-12 STEM Program to develop and implement an interactive education workshop at the International Teacher-Partnership Conference, Boston, M.A.

**Graduate Teaching Assistant,** **Introduction to Earth Science,** The University of North Carolina at Greensboro, Department of Geography (Fall 2010)

* + Assisted with preparing course materials, administered exams, facilitated group study sessions, and assisted faculty with end-of-semester grading.
  + Taught selected courses on water quality and land-use trends at the regional and local levels.

## RESEARCH AND PUBLICATION ACTIVITIES

**Published Research**

**Alford, Jennifer,** Debbage, K., Mallin, M., and Liu, Z. (2016). Impacts of transitional landscapes on

surface water quality across multiple physiographic regions in North Carolina. *Southeastern Geographer*, *56(4),* 428-453.

**Braswell, Jennifer** & Byrd, E. (2006). Visitor Access to Non Motorized Areas.*RTR Review of Tourism Research*, *4 (4): 92.*

Somers, A. B., J. Mansfield, and **Braswell, J.D**. (2007). In Stream, Streamside, and Under Stream Bank Movements of a Bog Turtle, *Glyptemys muhlenbergii.* *Chelonian Conservation and Biology. December.*

**National Oceanic and Atmospheric Administration (NOAA) Cape Fear River Basin Partnership** (Fall 2013-Present)

* + Collaborate with government and non-profit stakeholders throughout the river basin to develop and implement research that identifies human-environmental interactions and their impact the social, economic and environmental characteristics of the river basin.
  + Serve as a member of the water resources committee; Develop and implement research agendas aimed at protecting water resources throughout the basin network.
  + Work with Water resources committee members to identify funding sources and research focus areas within river basin. Projects include dam management, climate change resilience and ecosystem studies.

**Salem Creek Watershed Water Quality Monitoring,** Winston-Salem, NC (Spring 2016 – Present)

* + Work with Salem College Environmental Studies majors, the Yadkin Riverkeeper and City of Winston-Salem to develop and implement independent study research experiences centered on water quality monitoring program along urban stream segments in the Salem Creek Watershed.

**Graduate Research Assistant,** the University of North Carolina at Greensboro, Department of Geography

(Fall 2010)

* + Supported faculty research by collecting information including historic records and aerial imagery.
  + Developed and managed research databases.

**Graduate Research Assistant,** the University of North Carolina at Greensboro, Department of Parks and Recreation Management (Spring 2005 – Summer 2005)

* + Supported faculty research agendas by performing literature reviews for research and grant proposals that funded three research programs at UNCG.
  + Documented research results in excel database for faculty members.

**Research Assistant,** **Wildlife Biology,** UNC-Greensboro Department Biology (Spring 2004)

* Assisted faculty with collecting and synthesizing field data into a publishable format that was

subsequently published in *Chelonian Conservation and Biology*, December 2007.

**CONFERENCE PRESENTATIONS & GUEST LECTURES**

*Exploring the Spatio-Temporal relationships between LULC and Water Quality Across the Cape Fear River Basin, NC,* American Association of Geographers Annual Meeting, San Francisco, C.A. (Spring 2016)*,* Cape Fear River Basin Assembly Annual Meeting, Wilmington, NC (Spring 2015); North Carolina Water Resources Association Annual meeting (Summer 2016)

*Toxic Ripples: The Political Structure of Impaired Streams,* American Association of Geographers Annual Meeting, Los Angeles, C.A. (Spring 2013)

*K-12 Environmental Science Lessons Developed Through Partnerships: A UNC Greensboro - Portland State University Collaboration,* The International Teacher-Scientists Partnership, Boston, M.A. (Spring 2013)

*How Do Resident Scientists Effectively Communicate Their Science in the K-12 Setting?,* North Carolina Association for Biomedical Research STEM Annual Conference, Raleigh, N.C. (Fall 2012)

*Soil Erosion and Surface Water Quality in the Cape Fear River Basin, North Carolina,* National Science Foundation GK-12 Annual Meeting, Washington, D.C. (Spring 2012)

*Land-Use and Water Quality in the Cape Fear River Basin, North Carolina,* Southeastern Division of the American Association of Geographers, Annual Meeting, Savannah, G.A. (Fall 2011)

*North Carolina Wildlife Federation: Programs, Partnerships and Outreach,* National Wildlife Federation Annual Meeting, Houston, T.X. (Spring 2010)

*Stormwater Best Management Practices in the Recreation Setting,* University of North Carolina at Wilmington, Department of Human Health and Applied Human Sciences (Fall 2009)

*Water Quality in Our Community,* University of North Carolina at Wilmington, Department of Continuing Education (Spring 2009)

*Economics of Recycling and Waste Reduction,* University of North Carolina at Greensboro, Department of Economics (Spring 2007)

*Sustainable Tourism Models and Ecotourism Certification Programs,* University of North Carolina at Greensboro, Department of Parks and Recreation Management (Spring 2007)

*How to Implement Environmental Education Programs at Your University,* Carolina Recycling Association Annual Conference, Greenville, S.C. (Spring 2007)

*Stakeholder Theory & Non-Motorized Boat Access to the Dan River, Stokes County, N.C.,* Southeastern Recreation Research Conference, Wilmington, N.C. (Spring 2006)

**PROFESSIONAL EXPERIENCE**

**District Director,** New Hanover Soil and Water Conservation District (Spring 2008-Summer 2010)

***Program Administrative Responsibilities:***

* Exercised general administrative control over natural resource management, environmental education and outreach, budgetary and grant funded activities of the NHSWCD.
* Procured annual funding from County, City, State and Federal funding sources to support staff positions and programs. Annual contracts totaled over *$250,000.*
* Provided oversight for the implementation of the technical aspects of various water quality improvement and natural resource conservation programs across natural, urban, and agricultural settings.
* Provided conservation and management support of natural resources in open space areas of New Hanover County through land donations, grant-funded acquisitions, and conservation easements. Project areas included Hewletts Creek Watershed and Eagles Island Conservation Area.
* Wrote and managed grants for land acquisition, education and outreach programs and stormwater best management practice projects. Awarded grants include N.C. Clean Water Management Trust Fund *$235,000* in 2010.
* Administered the N.C. Community Conservation Assistance Program (CCAP): Provided educational, technical, and financial assistance for the installation of various stormwater best management practices (BMPs) on developed urban and suburban lands.
* Administered USDA Agricultural Cost Share Program: Provide technical and financial assistance for the installation of best management practices to improve and protect water quality on agricultural lands.
* Prepared and presented quarterly and annual reports to New Hanover County Commissioners and the NHSWCD Board of Supervisors.

***Outreach and Program Development:***

* Conducted presentations and educational program on various environmental topics to New Hanover County School students and teachers, organized neighborhoods and homeowners associations, garden clubs, community groups and stakeholders, and development and real estate professionals.
* Partnered with numerous New Hanover County and the City of Wilmington departments to implement numerous programs including: the Low Impact Development program, water conservation initiatives, and stormwater education programs.
* Served as the primary NHSWCD representative for the following local, regional and state committees: NC DENR Community Conservation Advisory Committee, New Hanover County Planning Technical Review Committee, The City of Wilmington Planning Technical Review Committee, Cape Fear Public Utility Authority Stakeholder Advisory Committee, Smith Creek Recreation Development Committee, Eagles Island Conservation Initiative, N.C. Cooperative Extension Advisory Leadership Committee, Cape Fear Arch Biodiversity Conservation Initiative, Pleasure Island Greenway Development and Land Acquisition Committee, and the Lower Cape Fear Stewardship Development Awards Program.

**Volunteer/Sustainability Coordinator,** Department of Environment and Natural Resources (DENR): North Carolina Aquarium at Fort Fisher (Fall 2007-Spring 2008)

* Coordinated, trained and managed over 229 volunteers annually.
* Developed new social marketing strategies for recruiting volunteers.
* Coordinated with aquarium departments to assess volunteer needs, placing and training volunteers.
* Managed and implemented budgets for annual events.
* Supervised and managed projects for assistant volunteer coordinator.
* Produced and distributed monthly newsletter for active volunteers and aquarium staff.
* Served as Head Chair of the Aquarium Sustainability Committee charged with identifying and implementing conservation strategies.
* Assisted with environmental education programs for volunteers and the general public.

**Environmental Education Coordinator,** the University of North Carolina at Greensboro, Department of Waste Reduction and Recycling; Office of Sustainability (Fall 2005 – Fall 2007)

* Developed, implemented, and evaluated new and existing programs serving the institution’s more than 16,000 students and 2,000 faculty and staff members.
* Evaluated the effectiveness of programs and implemented improved educational methods and social marketing strategies.
* Managed budgets, secured fundraising and donations from community members for large and small-scale campus and community events.
* Planned and managed over 12 events annually - ranging from small informational events to large collaborative community/campus events.
* Supervised and managed the tasks of seven student interns.
* Presented educational programs to numerous students, faculty and staff members to increase recycling participation, sustainability issues, and raised awareness.
* Produced informational and educational publications including newsletters, manuals, articles, brochures, signage, and posters for university community.
* Coordinated, trained, and managed approximately 80 volunteers annually.
* Served on the UNCG Sustainability Committee to identify and implement green initiatives throughout campus community.

## PROFESSIONAL ORGANIZATIONS & COMMITTEES

**Yadkin Riverkeeper, Inc. Board of Directors, Vice-President** (Spring 2016 – Present)

* Exercise oversight of Executive Director and Riverkeeper positions, financials, environmental campaigns, water quality monitoring, legislative and litigation activities.
* Participating in the NC Blue Cross Blue Shield Non-profit Academy to assist organization with restructuring staff and board functions.
* Work with staff to partner with resource agencies and academic institutions to develop community-based research and educational opportunities.

**North Carolina Geographical Society** (2016-Present)

* Serving on committee to lead re-establishment of organization.

**North Carolina Water Resources Association,** Member (Spring 2015-present)

* Attend annual meetings and present current research to membership.

**Sustainable Sandhill Climate Resilience Planning Committee** (2015-2016)

* Provided staff with research results to assist with identifying critical areas of development and related impacts to ecosystems in the Middle Cape Fear River Basin, N.C.

**National Oceanic and Atmospheric Administration (NOAA) - Cape Fear River Basin Plan Committee**

(Fall 2012-Present)

* Work with NOAA staff and stakeholders to develop a comprehensive river basin plan to assist decision-makers in protecting water resources, habitat, and species in the basin.

**North Carolina Wildlife Federation (NCWF)** (2005 - 2012)

* Member of the State Board of Directors (2005-2012): Served as Resolution Director; Assisted with program development, grassroots networking and education; fundraising activities, including major donations.
* Worked with NCWF and NWF staff to promote climate change legislation and funding for state wildlife grants.
* Represented NCWF at EarthShare events to promote programs and network with organizations to develop private-public partnerships.
* Wildlife and Industry Together (WAIT) Advisory Committee Member (2005-2012)

**North Carolina Environmental Educators** (2007-Present)

* Attend annual conferences
* Served on Conference Planning Committee (2008)

**Association of American Geographers (AAG),** Member(Summer 2011 - Present)

* Presented research at annual meetings (2013, 2015)
* Collaborated with multiple members to organize and chair a session at the 2014 annual meeting entitled *Water Resources and Sustainable Development*
* Developed, organized and chaired session for 2013 annual conference in Los Angeles entitled *Water Resource Protection: Exploring Multiple Strategies*

**Southeastern Division of American Association of Geographers (SEDAAG),** Member(Summer 2011 - Present)

**California Geographical Society,** Member(Summer 2011 - Present)

**Gamma Theta Upsilon Geography Honors Society** (Spring 2012 - Present)

* President (2013-2014)
* Vice-President (2012-2013)

**University of North Carolina at Greensboro Geography Graduate Student Association**

(Spring 2012 – Spring 2014)

* Served as President and Graduate Student Association Senator – Assist graduate students in applying for and procuring funding resources for conferences, professional development, and dissertation and thesis research

**AAA Science,** Member(Fall 2011 - Present)

**Surfrider Foundation, Cape Fear Chapter,** Member (2007-2010)

* Attended meetings and worked with members to promote programs and events focused on water quality protection.

**HONORS, CERTIFICATIONS, and ACADEMIC FUNDING**

* National Science Foundation Graduate Fellow – GK-12 Program (2011-2013); Coordinated and supported environmental education and research efforts between UNCG departments and K-12 Title I schools. $35,000 annually.
* UNCG Graduate School Summer Research Funding Scholarship (2011, 2012, 2013) – Awarded $2,000 per summer to assist with research efforts related to conference presentations and dissertation research.
* *Gamma Theta Upsilon* Geography Honors Society (Inducted 2012)
* USDA: Natural Resource Conservation Service: Cultural Resource Certification (Level 1)
* USDA: Natural Resource Conservation Service: Conservation Planner Certification (Level I)
* N.C. State University Stormwater Best Management Practices and Low Impact Development Certification
* DENR-NC Environmental Education Certification (2007)
* Chancellor’s Award for Academic Excellence, UNC-Greensboro (2004-2005)
* National Wildlife Federation Graduate Student Scholarship Winner (2005)
* *Alpha Lambda Delta* Academic Honors Society (Inducted 1999)

**SERVICE ACTIVITIES**

* Keep Winston-Salem Beautiful Event Volunteer (Spring 2014-Present)
* Science Olympiad Event Leader: Water Quality, Greensboro, N.C. (Spring 2013)
* Science Fair Judge, Kiser Middle School, Greensboro N.C. (Fall 2012)
* Volunteer, The HERPS Environmental Education Project, Burlington, N.C. (Summer 2012)
* Science Olympiad Judge, UNC-Greensboro, Greensboro, N.C. (Spring 2012)
* Pender County (Pender Watch) Oyster Shell Recycling and Reef Monitoring Program (Summer 2009)
* N.C. Coastal Federation Marsh Grass Re-establishment Program (Spring 2009)
* Karen Beasley Sea Turtle Hospital, Topsail Island, N.C. (Fall 2003-2007)

Assisted with turtle feedings, cleaning tanks, and hatchery monitoring