# Narcisa G. Pricope

PROFESSOR OF GEOGRAPHY AND GEOSPATIAL SCIENCE DIRECTOR, SOCIO-ENVIRONMENTAL ANALYSIS LAB PROGRAM DIRECTOR, USGIF-ACCREDITED GEOINT CERTIFICATE AND FAA UAS CTI AT UNCW Department of Earth and Ocean Sciences University of North Carolina Wilmington 601 S. College Rd., 1004B Osprey Hall Wilmington, NC 28403 Email: pricopen@uncw.edu

# **RESEARCH INTERESTS**

I am a human-environment interactions geographer/land systems scientist who uses geospatial modeling, remote sensing and uncrewed aerial systems to work at the food-water-energy nexus at multiple spatio-temporal scales. I focus on complex socioecological systems dynamics, especially centered on understanding and quantifying environmental variability and the vulnerability of populations to environmental changes and extremes. Much of my work is concentrated in the drylands of eastern and southern Africa, and Peru, as well as coastal North America and Nepal, where I collaborate with diverse stakeholders and community partners to integrate geospatial technologies with socio-economic indicators to study coupled human-natural systems.

#### **EDUCATION**

UNIVERSITY OF FLORIDA. Gainesville, Florida, USA Department of Geography and Environmental Engineering PhD – Geography (NSF IGERT Associate). GPA: 3.96 Minor: Environmental Engineering - Adaptive Watershed Management PhD dissertation title: Using Remote Sensing to Create Indicators of Ecosystem Variability for a Semi-Arid Transboundary Watershed in the Kavango-Zambezi Region of Southern Africa.	May 2006 – December 2011
WESTERN KENTUCKY UNIVERSITY. Bowling Green, Kentucky <i>Department of Geography and Geology</i> Master of Science – Geosciences. GPA: 4.0 M.Sc. thesis: <i>Modeling Soil Erosion in the Upper Green River Basin, Kentucky.</i> Geographic Information Science Certificate	August 2004 – May 2006
BABES-BOLYAI UNIVERSITY. Cluj-Napoca, Romania Department of Geography Bachelor of Arts – double-major: Geography and English. GPA: 3.78 Valedictorian –1 <sup>st</sup> in a class of ~200. (Magna cum laude) Undergraduate honors thesis: Assessment of reactivation risk for Holocene-age landslides in the Transylvanian Plateau, Romania.	October 2000 – July 2004
UNIVERSITY OF GLASGOW. Glasgow, Scotland, UK <i>Department of Geography</i> EU Socrates-Erasmus International Exchange Student Full-time scholarship, emphasis Geomorphology and GIS.	October – December 2002

# **PROFESSIONAL EXPERIENCE**

Director			August 2022 - Present
National Science Fou	ndation-funded UN	CW Coastal UAS Observatory	
Program Director			
Federal Aviation Adn Collegiate Training Ir	• •	nmanned Aerial Systems (UAS) cate at UNCW	August 2022 - Present
Program Director United States Geosp Certificate in Geospa	•	undation (USGIF) accredited undergraduate and grad JNCW	August 2018 - Present duate
Graduate GIS Certifi	cate Coordinator U	NCW	July 2020 – Present
Associate Professor Department of Earth	and Ocean Science	s, University of North Carolina Wilmington	July 2017 – July 2021
Assistant Professor, Department of Earth		s, University of North Carolina Wilmington	July 2013 – July 2017
Courses ta	ught		
	GGY480	Geospatial Intelligence Capstone	Fall 2019
	GGY429/529	Aerial Drone Applications in Geosciences	Fall 2018, Fall 2019, F2020, S2023
	GEO 592	UAS-Based Field Research	Fall 2017
	GGY 522	Remote Sensing in Environmental Analysis (in	Every spring 2016-2023

		Google Earth Engine S2023)	
GGY 4	73	Environmental Land Use Planning	Spring 2015, Fall 2017
GGY 28	81	Introduction to Geographic Information Science	Every semester
GGY 4	75/575	Water Resources: Science & Policy	Fall 2014, 2016, 2018
GGY 43	35/535	Human Footprint on the	Spring 2014
		Landscape/Environmental Geog.	

# Assistant Professor, Tenure-Track

Environmental Studies Department, Southern Oregon University

September 2010 – June 2013

	ES 453/553	Remote Sensing of the Environment	Spring 2013
	ES 435/535	Water Resources	Spring 2013
	ES 451/551	Introduction to Geographic Information	Winter 2013
		Science	
	ES 112	Earth Science II	Winter 2013
2 sections	ES 112	Earth Science II Lab	Winter 2013
	ES 481	Geomorphology	Fall 2012
	ES 111	Introduction to the Physical Environment I	Fall 2012
2 sections	ES 111	Intro. Phys. Env. I Lab	Fall 2012
	ES 453/553	Remote Sensing of the Environment	Spring 2011
	ES 435/535	Water Resources	Spring 2011
	G 341	Sedimentology	Winter 2011
	ES 112	Earth Science II	Winter 2011
2 sections	ES 112	Earth Science II Lab	Winter 2011
	ES 481	Geomorphology	Fall 2010
	ES 111	Introduction to the Physical Environment I	Fall 2010
2 sections	ES 111	Intro. Phys. Env. I Lab	Fall 2010

# Visiting/Postdoctoral Researcher

# Department of Geography, University of California Santa Barbara

Remote sensing, climate change and population vulnerability mapping in sub-Saharan Africa project in the Human-Environment Dynamics Lab at UCSB in collaboration with the Climate Hazards Group and the US International Development Agency's Famine Early Warning and Assessment Network (FEWS Net).

# **Co-instructor**

Central Department of Botany, Tribuvhan University, Nepal

Remote Sensing and GIS/GPS Applied Field Course in Langtang and Sagarmatha National Parks, Manaslu Conservation Area and Annapurna Conservation Area

Remote Sensing and GIS/GPS Applied Field Course

# **Research Associate**

Instructor

Environmental Engineering Department, University of Florida

National Science Foundation Integrated Graduate Education and Research Traineeship (IGERT). IGERT associate in Adaptive Management, Wise Use of Water, Wetlands, and Watersheds. Collaboration with international wetlands research centers in Southern Africa, South America, and South Florida. Organized international fieldtrips and workshops instructing local stakeholders on the use of community-based monitoring tools in Botswana, Namibia, and Zambia.

Designed &	GEO 2200 - Introduction to Physical	Department of Geography	Spring
Taught	Geography		2009
Designed &	GEO 3352 - The Human Footprint of the	Department of Geography	Spring
Taught	Landscape		2009
Co-Instructor	EES 4932 - Water, Environment, and	Environmental Engineering	Spring
	Society (Undergraduate Honors Course)	Department	2008
Teaching Assista	ant		
	EES 5307 – Ecological engineering	Environmental Engineering	Spring
	(graduate level course).	Department	2009

# **Research Assistant**

United States Geological Survey Grant, Western Kentucky University

Fluvial geomorphology research project with Dr. Stephen Kenworthy. In charge of both fieldwork and data analysis and processing using GIS. The project was a joint effort of WKU, the USGS and USDA.

Designed and	GEOG 420 – Data Analysis	Department of Geography and	Fall
Taught		Geology	2008
Designed &	GEOG 100 – Physical Geography	Department of Geography and	Spring
Taught		Geology	2006
Idem	GEOG 100 – Physical Geography	Idem	Fall 05

# **GRANTS AND AWARDS**

**2010 - Present** Total funding applied for: ~\$3,394,575 of which funding amount received to date: \$2,800,716, in addition to \$5,000,000 NGA GLAP Blanket Purchase Agreement (2020-2025)

# September 2011 – December 2012

May 2006 – July 2010

# August 2004 - 2006

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Fall 2009

2022	Appointed to the Bureau of the Committee on Science and Technology of the <b>United Nations Convention to</b> <b>Combat Desertification (UNCCD) Science-Policy Interface (SPI)</b> committee as an independent researcher for the four-year term leading up to the 16 <sup>th</sup> and 17 <sup>th</sup> Conference of the Parties (COP) 2024 and 2024.
2022	National Aeronautics and Space Administration (NASA) Research Opportunities in Space and Earth Sciences (A.49 of NRA NNH21ZDA001N-EEJ, entitled Research Opportunities in Space and Earth Sciences (ROSES-2021) Equity and Environmental Justice program: "Green infrastructure solutions to support flood mitigation and adaptation in coastal low-lying disadvantaged communities". PI: Narcisa G. Pricope. Co-Is: Joanne Halls and Leah Mayo (UNCW). Amount awarded: \$149,750. Period of performance: Sept. 2022 – March 2024.
2022	<b>University of North Carolina Wilmington Graduate Faculty Mentor Award</b> presented at the Fall 2022 Faculty Meeting.
2022	University of North Carolina Wilmington James Merritt Million Dollar Club induction.
2022	National Science Foundation Major Research Instrumentation (MSF MRI) program: "MRI: Acquisition of a novel multi-sensor equipped unmanned aerial system (UAS) observatory for coastal mapping". PI: Pricope, N.G. Co-PIs: Eulie, D., Leonard, L., Bresnahan, P. and Halls, J. Amount awarded: \$850,863. Period of performance: August 2022 – August 2026.
2022	Chief Marshall, University of North Carolina Wilmington Commencement, May 13 2022.
2022	<b>North Carolina Department of Transportation (NCDOT):</b> <i>Demonstrating the Capabilities of UAS Topobathymetric LiDAR Mapping in Support of DOT Project Planning, Monitoring and Modeling.</i> PI: Narcisa Pricope. Amount awarded: \$326,838. Period of performance: August 2022 – August 2024.
2021	<b>University of North Carolina Wilmington Sponsored Programs and Research Compliance (SPARC) Office</b> "Most Publications in Academic Year 2020-2021 in the College of Arts and Sciences at UNCW" award. Presented Nov. 5 <sup>th</sup> 2021.
2021	Winner of the WILMA Magazine Women to Watch Education category award for 2021.
2021	Awarded a " <b>40 Under 40</b> " honor for professionals making a difference in the community by StarNews and the Wilmington Chamber of Commerce.
2021	North Carolina Prescribed Fire Council research award: <i>Prescribed fire needs assessment for North Carolina</i> . Pls: Monica Rother (UNCW-EVS) and Narcisa Pricope. Amount awarded: \$10,000. Period of performance: August 2021 – May 2022.
2021	The University of North Carolina Wilmington 2021 College of Arts and Sciences Faculty Research Award presented at the 2021 Faculty Convocation.
2020	<b>The National Council for Science, Technology, and Technological Innovation (CONCYTEC) Peru (World Bank)</b> award: <i>Monitoring the health and sustainability of rangelands in the puma humeda ecosystems of Peru using a</i> <i>combination of molecular technology and remote sensing.</i> PI: A. Estrada Zuniga (University of Cusco, Peru); Co-PIs: J. Naupari Vasquez (UNLAM) and Narcisa Pricope (UNCW). Amount awarded: \$139,331 (to UNCW: in-kind contribution including travel support for Pricope and one UNCW graduate student to Peru for fieldwork). Period of performance: Jan. 2021 – Jan. 2023.
2020	The U.S. Agency for International Development (USAID) through its Partnerships for Enhanced Engagement in Research (PEER) program; <i>Livelihood Change in the Context of Community Conservation – Chobe, Botswana</i> award. PI: Lin Cassidy (University of Botswana); Co-PI: Andrea Gaughan (U Louisville), Narcisa Pricope (UNCW), and Jon Salerno (Colorado State U). Amount awarded: \$74,405 (to UNCW: in-kind and field support).

- 2020 **The University of North Carolina Wilmington Research Momentum Funds:** *Exploring Spatiotemporal Variability in Carbon Dioxide Fluxes in Wilmington's Tidal Creeks Via Novel Sensor/Drone/Satellite Integrations.* PI: Phil Bresnahan, Co-PIs: Joanne Halls and Narcisa Pricope. Amount awarded: \$5,000.
- 2020 **The United States National Geospatial Intelligence Agency (NGA)** submission in response to HM0476-20-Q-002 entitled *GEOINT Learning Through Academic Programs (GLAP)*. Submitted under the leadership of the USGIF, February 27<sup>th</sup> 2020. UNCW PI: Narcisa Pricope. Amount awarded: \$5,000,000. Blanket purchase agreement.
- 2020 University of North Carolina Wilmington Sponsored Programs and Research Compliance (SPARC) Office "Most Research Grant Submissions at UNCW in AY2018-2019 Award" presented at the UNCW's 13<sup>th</sup> Annual Research Reception, February 25<sup>th</sup> 2020.
- 2020 National Oceanic and Atmospheric Administration (NOAA) Office of Coastal Management and Sea Grant Karl Havens Memorial South Atlantic Regional Research Competition: *Costs, Benefits, and Connectivity: Assessing Options for Flood Resilient Transportation Upgrades in Four Southeastern Coastal Communities*. PI: Jason Evans (Stetson University, Florida), North Carolina PI: Narcisa G. Pricope. March 2020 – February 2022. Award amount: \$440,000 (amount awarded to UNCW: \$100,000).
- 2020 **The Global Environment Facility (GEF)** award to Conservation International and University of California Santa Barbara (UCSB), subcontract for UNCW: *Strengthening Land Degradation Neutrality data and decision-making through free and open access platforms (Tools for LDN)*. UNCW PI: Pricope. Award amount: \$2,000,000 (amount awarded to UNCW: \$127,901). Performance period: May 2020 – December 2021.
- 2020 **The National Socio-Environmental Synthesis Center/University of Maryland** (funded by the National Science Foundation) award to participate in the "People, Land and Ecosystems: Leveraging NEON for Socio-Environmental Synthesis" workshop. February 10-12, 2020. Amount awarded: travel and per diem for the duration of the intensive workshop.
- 2020 Landesa/United States Agency for International Development (USAID) Gender and land Allocation Project subcontract for generation of spatially-explicit variables for regression modeling. PI: Narcisa Pricope. Award amount: \$10,375. Period of performance: January-February 2020.
- 2019 North Carolina Department of Transportation (NCDOT) Technical Assistance Request (awarded three times) for the project entitled 'Assistance with RedEdge MX camera and UAV image processing'. Total amount awarded in 3 consecutive TARs: \$12,936. Period of performance: August – December 2019.
- 2019 Curriculum developer for the United States Geospatial Intelligence Foundation (USGIF) with funding from the **National Science Foundation (NSF)** Award DUE ATE 1304591, 1644409, 1700496 to the GeoTech Center. Course developed: *Data geovisualization for geospatial intelligence*. Award amount: \$3,000.
- 2019 University of North Carolina Wilmington 2019 Strategic Initiative Program application entitled: "Building a sustainable interdisciplinary geospatial intelligence program at UNCW". PI: Pricope (EOS); Co-PIs: Eulie (EVS), Masters (INT), Morago (CS) and Wang (STT). Amount received: \$3,500.
- 2019 American Association of Geographers, Africa Specialty Group **The Inaugural Distinguished Emerging Scholar Award in African Geography Award**. Presented at the American Association of Geographers Annual Meeting in Washington DC, April 4<sup>th</sup> 2019.
- 2019 University of North Carolina Wilmington Office of Community Engagement award: Enhancing harmful algal bloom monitoring efforts and public engagement in the Chowan River and Albemarle Sound, North Carolina. PI: Pricope; Graduate student supported: Hunter Synan. Amount awarded \$3,500. Performance period: May – August 2019.
- 2019 The Association of American Colleges and Universities (AACU) **Project Kaleidoscope STEM Leadership Institute Fellow**. Participation supported through an internal grant from UNCW. Award amount: ~\$5000.

- 2019 U.S. Department of State's Bureau of Educational and Cultural Affairs (ECA) **U.S. Fulbright Scholar Award**: teaching and research at the University of Namibia. Amount awarded: \$64,950. Performance period: March 2020 – August 2020.
- 2019 North Carolina Department of Transportation (NC DOT): Fusing multi-source UAS-derived data to improve project planning and the NCDOT Wetlands Prediction Model. PI: Narcisa Pricope, Co-PI: Joanne Halls. Amount awarded: \$300,411. August 2019 August 2021.
- 2019 University of North Carolina Wilmington **Center for Teaching Excellence Summer Pedagogy Development Award** to develop UNCW's first course on Geospatial Intelligence (GEOINT). Amount awarded: \$3,000. Performance period: June 2019.
- 2019 University of North Carolina Wilmington Office of Community Engagement award: *Enhancing socio-ecological* resilience in low elevated coastal zones subject to recurrent inundation. PI: Pricope, Co-PI: Halls, Graduate student supported: Christopher Hidalgo. Amount awarded \$5,000. Perfomance period: Jan. 2019 – Dec. 2019.
- 2018 The National Council for Science, Technology, and Technological Innovation (CONCYTEC) Peru (World Bank) award; The development of early warning systems based on remote sensing and mobile information technologies for the sustainable use and management of rangelands. PI: Naupari-Vasquez (U. Nacional Agraria La Molina, Peru), Co-PI: Angerer (Texas A&M) and Pricope (UNCW). Amount awarded \$100,000. Period of performance Jan 2019 – Jan. 2022.
- 2018 University of North Carolina General Assembly, Stage 2 Inter-Institutional Planning Grant: *Synchronous Mapping* of Coastal Habitat Change Using Multiple Unmanned Aerial Vehicles. PI: Pricope (UNCW) and Co-PI Akella (UNCC). Amount awarded \$75,000. Performance period: Aug. 2018 – June 2019.
- 2018 US State Department **Fulbright Senior Specialist Assignment** to the National Agrarian University La Molina, Lima, Peru (Universidad Nacional Agraria La Molina, Peru). \$10,000.
- 2018 Awarded **Fulbright Senior Specialist** status (Feb. 2018 to Feb. 2021) by the U.S. Department of State's Bureau of Educational and Cultural Affairs (ECA) and World Learning.
- 2018 The University of North Carolina Wilmington Center for Teaching Excellence **Discere Aude Award 2017-2018** for outstanding mentoring of students.
- 2018 Center for Innovation and Entrepreneurship at UNCW Geospatial and Drone Analysis Service Group start-up funding; the service group serves as a model for public-private partnerships based on successful UNCW research labs. PI: Pricope, Co-I: Halls. \$10,683.
- 2017 University of North Carolina Wilmington SURCA Award: "Working with data collected by an unmanned aerial vehicle to model human-environmental interactions". PI: Narcisa Pricope; graduate student: Steele Olsen; undergraduate advisee: Amelia Bradshaw. \$5,000. Summer 2017.
- 2017 University of North Carolina Wilmington eTEAL award: "High-Performance Computing Across the Curriculum: a Pilot Study". PIs: Narcisa Pricope, Joanne Halls (Earth and Ocean Sciences Dept.), Cuixan Chen (Math and Statistics Dept.), Yaw Chang (Math and Statistics Dept.), Yishi Wang (Math and Statistics Dept.), and Clayton Ferner (Computer Science Dept.). \$7,000.
- 2017 University of North Carolina Wilmington SURCA Award: "Mapping hydrologically-sensitive environments in alpine forests of the western USA. PI: Narcisa Pricope; undergraduate advisee: Justin Wells. \$5,000. Spring 2017.
- 2017 University of North Carolina Wilmington Community Engagement Grant: *Plan before you research: using a proactive and cooperative platform to engage rural residents in stream pollution reduction programs.* PI: Narcisa G.

Pricope; Co-PI: Roger Shew; Community Partner: The Cape Fear River Watch (Kemp Burdette) and graduate student Kerry Mapes. \$5,000.

- 2017 US State Department and University of North Carolina International Islamic University of Islamabad Partnership Mini-grant award: "Geospatial analysis of Pakistani foreign relations over time – a seed collaborative project involving Pakistani and US scholars", PI: Narcisa Pricope. \$2,500. Spring 2017.
- 2017 University of North Carolina Wilmington College of Arts and Sciences Pilot Grant Award: "Unmanned Aerial Systems (UAS) - enabled monitoring and modeling for habitat analysis". PI: Narcisa Pricope. \$3,500. Spring 2017.
- 2016-2019 National Science Foundation Geography and Spatial Science (GSS) Award No. 1560700: Land Systems Dynamics, Vulnerability and Adaptation in a Transfrontier Conservation Area. PI: Andrea Gaughan (U of Lousiville), Co-Is: Narcisa G. Pricope (UNCW), Forrest Stevens (U Louisville) and Joel Hartter (UC Boulder). \$325,000 for May 2016 – May 2019.
- 2016 University of North Carolina Wilmington Office for International Programs Travel Grant for the Third Open Science Meeting of the Global Land Project, Beijing, China, October 24-27<sup>th</sup> 2016. \$1,000.
- 2016 University of North Carolina Wilmington Community Engagement Grant: Assessment of Critical Infrastructure and Key Resources in New Hanover County, NC, under Various Sea Level Rise and Storm Surge Scenarios. PI: Narcisa G. Pricope; advising undergraduate students: Sydney Bohn and Evan Hill. \$3,300.
- 2016 University of North Carolina Wilmington eTEAL Sustainability 2.0 Award: Application of Geospatial Technology to Enhance Multi-disciplinary Learning at UNCW to purchase 10 Android tablets for field data collecting on the Open Data Kit (ODK) platform for both remote sensing and GIS projects. \$2500.
- 2016 University of North Carolina Wilmington Instrumentation Grant: purchase of an ASD HandHeld Pro Spectroradiometer for the SEAL Lab and remote sensing class. \$15,000.
- 2015-2018 National Science Foundation HRD Award No. 1533592: "Targeted Infusion Project: Building an interdisciplinary geosciences and geospatial intelligence curricula through applied training in mapping and spatial reasoning". PIs: Camelia Kantor, Narcisa G. Pricope, Hicks Bettie and Camelia Knapp. \$331,375. Performance period: June 2015 to June 2018.
- 2015 University of North Carolina Wilmington eTEAL (Experiencing Transformative Education through Applied Learning) Award: "Mapping and Analysis for the Provision of Social Services". Pricope, N.G and Waity, J. (Sociology). \$3,500.
- 2015 International Foundation for Science research award for "Drought vulnerability assessment of the Ramechap District of central-eastern Nepal". Mainali, J. (Fulbright scholar and MSc. student) and Pricope, N.G. \$12,000.
- 2015 University of North Carolina Wilmington College of Arts and Sciences 2015 Summer Research Initiative award: Pastoralism and livelihoods change in Ethiopia's Simien and Bale National Parks. Pricope, N.G. \$3,500.
- 2014 University of North Carolina Wilmington eTEAL (Experiencing Transformative Education through Applied Learning) Award: "Developing an applied and collaborative water resources curriculum core at UNCW". Pricope, N.G. and Henry, E. \$3,600.
- 2014 National Science Foundation and Association of American Geographers International Geographical Union (IGU) travel award for the IGU Regional Conference in Krakow, Poland August 18-22<sup>nd</sup> 2014. \$1250.
- 2013 University of North Carolina Wilmington Charles L. Cahill Research Award: "Exploratory field research: Modeling the impact of urban growth and climate change on water availability in the Lake Victoria Region of Eastern Africa". \$3,000.

- 2013 University of North Carolina Wilmington Office of International Programs travel award for the Second Open Science Meeting of the Global Land Project, Berlin, Germany, March 19-21<sup>st</sup>, 2014. \$1,000. University of North Carolina Wilmington eTEAL (Experiencing Transformative Education through Applied 2013 Learning) Award: "Application of geospatial technology to enhance multi-disciplinary learning at UNCW"; Pricope, N.G. and Halls, J. \$5,600. 2013 National Center for Ecological Analysis and Synthesis (NCEAS) Summer Institute 2013 Fellow, 3-week intensive training workshop in ecological analysis and synthesis, to take place at NCEAS in Santa Barbara CA June 19-July 10, 2013 (all expenses covered). National Socio-Environmental Synthesis Center (SESYNC) Short-course invited participant in Teaching Socio-2013 Environmental Synthesis with Case Studies, Annapolis, MD July 23-26<sup>th</sup>, 2013. 2013 Southern Oregon University Professional Development Grant for the Green House Seminar Curriculum Development (2013-2014); \$5,400. 2013 National Science Foundation and Association of American Geographers International Geographical Union (IGU) travel award for the IGU Regional Conference in Kyoto, Japan, August 4-9, 2013. \$1,250. American Association for the Advancement of Science (AAAS) Early Career Fellowship, AAAS Annual Meeting in 2013 Boston, MA. February 14<sup>th</sup> -18<sup>th</sup> 2013. \$1,000. 2012 Southern Oregon University, President's Mini-Grant Award for student capstone research on the project "Variability of rainfall interception rates as a function of canopy cover in the Ashland Creek Watershed". Winter and Spring Quarters 2013, senior capstone project. \$800. Southern Oregon University, Carpenter Foundation. Carpenter Grant, II - travel grant for the American 2012 Geophysical Union (AGU) Annual Meeting, San Francisco, CA. December 3<sup>rd</sup>-7<sup>th</sup> 2012. \$525. Dissertations Initiative for the Advancement of Climate Change Research (DISCCRS) VII Symposium Scholar, 2012 sponsored by the National Science Foundation (NSF) and National Aeronautics and Space Agency (NASA), Colorado Springs, Colorado. October 13<sup>th</sup>-20<sup>th</sup> 2012. ~\$4,000. 2012 Brown International Advanced Research Institutes (BIARI) Fellow - Climate Change and its Impacts: Regional Coupled Human-Natural Systems and Evidence-Based Policy Making. All living and travel expenses for a 2-week workshop in Providence, RI. June 9<sup>th</sup>-23<sup>rd</sup>, 2012. \$5,000. 2012 Southern Oregon University, Carpenter Foundation. Carpenter Grant, II – travel grant for the American Association of Geographers (AAG) Annual Meeting, New York City, NY, February 2012. \$320. 2011 United Nations Environment Program Global Environment Outlook-5 (GEO-5) Fellow (DEWA/CDB/GEO-5 Fellowship 2011). All travel expenses to the Production and Authors' Meeting of the GEO-5 in Bangkok, Thailand September 4-8, 2011. \$2,900. 2011 Southern Oregon University, Professional Development Grant (Michael Parker, Charles Welden, and Narcisa Pricope PIs) for joint Biology-Environmental Studies Departments water quality monitoring efforts. \$4904. 2011 United States Geological Survey, US Forest Service and The Nature Conservancy joint grant to deploy and monitor a long-term MS5 Water Quality Multiprobe into Ashland Creek, Oregon. \$800. 2011 University of Florida IGERT travel award for the American Association for the Advancement of Science Annual meeting, Washington DC, February 17-21, 2011. \$800.
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2010	<b>Southern Oregon University</b> , Carpenter Foundation. Carpenter Grant, II – travel grant for the American Association for the Advancement of Science Annual meeting, Washington DC, February 17-21, 2011. \$400.
2010	<b>Southern Oregon University</b> College of Arts and Sciences funding for the creation of the Applied Geomorphology and Hydrology Laboratory, Environmental Studies Department. \$10,000.
2008-2010	<b>National Science Foundation</b> – Doctoral Dissertation Improvement Grant (DDRI BCS-0824720): Using Remote Sensing to Create Indicators of Socio-Ecological System Resilience for Semi-Arid Savanna Watersheds in the Kavango-Zambezi Region of Southern Africa. \$12,000.
2006-2010	<b>National Science Foundation</b> - Integrated Graduate Education and Research Traineeship (IGERT) Adaptive Management, Wise Use of Water, Wetlands, and Watersheds. Grant Number: 0504422. Award. \$85,000; includes salary, research fieldwork in Africa, conference travel expenses, laptop computer, etc.

# PENDING GRANT APPLICATIONS

National Oceanic and Atmospheric Administration Transformational Habitat Restoration and Coastal Resilience Grants under the IIJA program (Solicitation No. NOAA-NMFS-HCPO-2022-2007195): "A Multi-Scalar Geospatial Assessment of Thin Layer Placement for Salt Marsh Restoration in Coastal North Carolina". Pl: Geo Owl LLC, Remote sensing lead: Narcisa Pricope (UNCW), Engineering lead Coastal Protection Engineering. Amount requested: \$3,898,525. Pending.

**National Science Foundation Human-Environment and Geospatial Sciences** program: "*A multi-level analysis integrating household adaptation strategies nested within emerging hot spots of land degradation vulnerability and bright spots of resilience*". PI: David Lopez-Carr (UCSB), Co-PIs: Narcisa Pricope (UNCW) and Kevin Mwenda (Brown University). Amount requested: \$399,900. Pending.

**Office of the Director of National Intelligence (ODNI):** *"IC Centers for Academic Excellence; Consortium for Strategic, Intelligence, Critical Technology and Security Studies".* PI: Karl Ricanek (CS), Co-PI: Narcisa Pricope. Amount requested: \$2,453,532. Pending.

**New Hanover Community Endowment** grant program: "*Clinical Research and Product Development (graduate program) Environmental Toxins*". PI: Jennifer McCall. Co-PIs: Narcisa Pricope, Stephanie Duea, Ralph Mead, Matthew Peterson, and Ariel Brown. Amount requested: \$249,343. Pending.

North Carolina Attorney General Environmental Enhancement Grants program: "Identification of Green Infrastructure Flooding Solutions in Disadvantaged Communities of the Lower Cape Fear River". PI: Joanne Halls, Co-PIs: Narcisa Pricope, Gulustan Dogan and Leah Mayo. Amount requested: \$120,639. Pending.

# PEER-REVIEWED PUBLICATIONS

\*indicates a Masters student author/co-author; \*\*indicates high school students advised towards publication; \*\*\*indicates a PhD student author/co-author.

- 1. Mwenda, K., **Pricope, N.G.,** Daldegan, G., Zvoleff, A., and Lopez-Carr, D. 2023. Integrating earth observation and socioeconomic datasets to quantify and assess human dimensions of land degradation in Kenya. *Population and Environment* (in review).
- Cassidy, L., Pricope, N.G., Stevens, F., Salerno, J., Murray-Hudson, M., Parry, D., Hartter, J., and Gaughan, A. 2023. How has CBNRM impacted economic wellbeing and adaptive capacity in rural households in Chobe - Botswana's flagship project area? *Conservation and Society* (in review).
- 3. **Pricope, N.G.,** Halls, J.N., Minei\*, A., Dalton, E.G.\*, Chen, C., Wang, Y., and Weatherford, M. 2022. Fusing multi-source UASderived data for coastal wetlands prediction modeling. *Frontiers in Remote Sensing* (in review).

- 4. Stevens, F., Gaughan, A., Salerno, J., **Pricope, N.G.,** Cassidy, L., Bailey, K., Hartter, J., Drake\*\*\*, M., Kolarik, N., Maseka, H., and Mosimane, A. 2022. Models and measures of household vulnerability and food security across a southern African, semiarid land system. *Journal of Land Use Science* (in review).
- 5. Hutsler\*, T., **Pricope, N.G.,** Gao, P., and Rother, M. 2022. Detecting woody plants in southern Arizona using data from the National Ecological Observatory Network (NEON). *Remote Sensing* (in press).
- 6. **Pricope, N.G.** and Shivers\*, G. 2022. Wetland vulnerability metrics as a rapid indicator in identifying nature-based solutions to mitigate coastal flooding. *Hydrology* **2022**, 9(12), 218: https://doi.org/10.3390/hydrology9120218
- Govil\*\*, S., Lee\*\*, A., MacQueen\*\*, A., Pricope, N.G., Minei\*, A., and Chen, C. 2022. Using Hyperspatial LiDAR and Multispectral Imaging to Identify Coastal Wetlands using Gradient Boosting Methods. *Remote Sensing* 2022, 14(23), 6002; https://doi.org/10.3390/rs14236002
- 8. **Pricope, N.G.**, Minei<sup>\*</sup>, A., Halls, J.N., Chen, C., and Wang, Y. 2022. UAS Hyperspatial LiDAR Data Performance in Delineation and Classification Across a Gradient of Wetland Types. *Drones* **2022**, 6(10), 268; https://doi.org/10.3390/drones6100268
- Pricope, N.G., Daldegan, G., Zvoleff, A., Mwenda, K., Noon, M., and Lopez-Carr, D. 2022. Operationalizing an integrative socio-ecological framework in support of global monitoring of land degradation. *Land Degradation and Development*, 1-16. https://doi.org/10.1002/ldr.4447
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# **BOOK CHAPTERS AND OTHER PUBLICATIONS**

Lopez-Carr, D., Brablec, G., Mwenda, K., and **Pricope, N.G.** 2022. *A Review of Pilot Country Workshops in Support of UNCCD Strategic Objectives (SO) 1,2 and 3: a case study testing the usefulness of the datasets and approaches suggested to monitor progress.* This report (28 pages) was produced as an output of the Global Environment Facility (GEF)-funded project 10230 "Strengthening Land Degradation Neutrality data and decision-making through free and open access platforms". For additional information on the project see https://www.tools4ldn.org

**Pricope, N.G.**, Halls, J., Minei\*, A., Dalton\*, E., and Eckhardt\*, C. 2022. *Fusing Multi-Source UAS-Derived Data to Improve Project Planning and the NCDOT Wetlands Prediction Model.* Final report submitted to the North Carolina Department of Transportation (NCDOT) in response to research project RP2020-04. January 27<sup>th</sup> 2022, 102 pages. https://connect.ncdot.gov/projects/research/Pages/ProjDetails.aspx?ProjectID=2020-04

**Pricope, N.G.** and Minei<sup>\*</sup>, A. 2021. *Data Collection, Processing, and Modeling Guide for LiDAR Uncrewed Aerial Systems (UAS) and In Situ Field Data in Support of Research Project 2020-04*. Instructions manual produced for the North Carolina Department of Transportation (NCDOT) research project RP2020-04. 168 pages.

Lopez-Carr, D., Mwenda, K., Mapes, K., Sokolow, S. and **Pricope, N.G.** 2021. A Review of Publicly Available Datasets in Support of Monitoring Progress Toward Strategic Objective 2 of the UNCCD Sustainable Development Goals: to improve living conditions of affected populations. This report (68 pages) was produced as an output of the Global Environment Facility (GEF)-funded project 10230 "Strengthening Land Degradation Neutrality data and decision-making through free and open access platforms". For additional information on the project see https://www.tools4ldn.org (peer-reviewed report)

**Pricope, N.G.** Mapes, K., Mwenda, K., Sokolow, S. and Lopez-Carr, D. 2021. *A Review of Publicly Available Geospatial Datasets and Indicators in Support of Drought Monitoring*. Tools4LDN Technical Report on Monitoring Progress Towards UNCCD Strategic Objective 3. Pp. 94. This report was produced as an output of the Global Environment Facility (GEF)-funded project 10230 "Strengthening Land Degradation Neutrality data and decision-making through free and open access platforms". For additional information on the project see https://www.tools4ldn.org (peer-reviewed report)

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Kantor, C., **Pricope, N.G.,** and Wang, S. 2018. Discipline-Based Education Research (DBER) – a new approach to teaching and learning in Geospatial Intelligence. In *The State & Future of the GEOINT 2018, The United States Geospatial Intelligence Foundation*. Print and available online at http://trajectorymagazine.com/discipline-based-education-research/

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Mapes, Kerry L.; **Pricope, Narcisa G**.; Shew, Roger; Burdette, Kemp. 2017. *Plan before you research: Using a proactive and cooperative platform to engage rural residents in stream pollution reduction programs*. A report submitted to the University of North Carolina Wilmington Office of Community Engagement.

Bohn\*, S., Hill\*, E., and **Pricope, N.G.** 2016. Sea level rise hazard assessment for New Hanover County, North Carolina. *Explorations* (UNC system peer-reviewed undergraduate research journal). Volume XI: pp. 56-75. http://uncw.edu/csurf/Explorations/Volume%20XI/Bohn%20and%20Hill.pdf

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# **CONFERENCE AND SEMINAR PRESENTATIONS**

# **Invited Guest Lectures and Presentations**

**Pricope, N.G. 2023.** *Exploring landscapes of unequal exposure to risk: mapping poverty clusters in relation to compound flooding in North Carolina.* Invited talk at the League of Women Voters of the Lower Cape Fear (LWVLCF) Hot Topics meeting. February 14<sup>th</sup> 2023.

**Pricope, N.G. 2023.** *Future Technology for Environmental Analysis.* Invited talk at the Kathleen Clay Library, Greensboro NC, with attendance from NCSU and UNC Greensboro. February 6<sup>th</sup> 2023.

**Pricope, N.G. 2022.** Green infrastructure suitability and LID modeling in support of flood mitigation for Pages Creek Restoration Plan. Invited talk at the Pages Creek Stakeholders Meeting organized by Moffatt and Nichol, November 8<sup>th</sup> 2022.

**Pricope, N.G. 2022.** *Fusing multi-source UAS-derived data to improve coastal wetland type predictions*. Invited talk at the NC chapter of the American Society for Photogrammetry and Remote Sensing (NC-ASPRS) Annual Meeting, Fayetteville NC, November 14<sup>th</sup> 2022.

**Pricope, N.G. 2022.** *Thermal imaging applications for water quality monitoring in the tidal creeks of New Hanover County, NC.* Invited talk at the New Hanover County Soil and Water Conservation District monthly board meeting, November 2<sup>nd</sup> 2022.

**Pricope, N.G. 2022.** *Mapping Programs for Inland and Compound Flood Vulnerability in North Carolina*. Invited talk at the 2<sup>nd</sup> Annual Water Adaptation to Ensure Regional Success (WATERS) Summit organized by Reps. Greg Murphy (NC-03) and David Rouzer (NC-07), October 12<sup>th</sup> 2022, Wilmington NC. Recording of talk available here: https://gregmurphy.house.gov/waters-summit (3:50h in video)

**Pricope, N.G. 2022.** *Preparing a coastal community for climate change impacts: sea level change, increased storminess and increased temperatures.* Invited guest presentation at the UNCW's Summer Ventures Program. July 6<sup>th</sup> 2022.

**Pricope, N.G. 2022.** *How can a marine scientist use drones?* Invited guest presentation at UNCW's Marine Quest Sea GEMS summer program. July 1<sup>st</sup> 2022.

**Pricope, N.G.** 2022. Uncrewed aerial systems applications for ecosystem health monitoring and mapping. Invited presentation at the closing event for World Bank/Peruvian CONCYTEC for the project *The development of early warning systems based on remote sensing and mobile information technologies for the sustainable use and management of rangelands.* The National Agrarian University La Molina, Lima, Peru. June 16<sup>th</sup> 2022.

**Pricope, N.G.** 2022. *Retrospective and prospective assessment of the Human Dimensions of Global Change American Association of Geographers Specialty Group direction.* Invited panelist in the "Taking stock of the human dimensions of global change (I and II)" at the American Association of Geographers Annual Meeting, February 28<sup>th</sup> 2022.

**Pricope, N.G.** 2021. A decision-support framework to inform green infrastructure suitability models for coastal regions. Presented at the North Carolina Sea Grant Monthly Meeting Series. August 26<sup>th</sup> 2021.

**Pricope, N.G.** 2021. *Forward-looking, risk-based approaches to planning: integrated planning and planning into action.* Presented at the East Central Florida Regional Resilience Collaborative, Finding common ground, people, place, prosperity. May 7<sup>th</sup> 2021 (invited panelist).

**Pricope, N.G.** 2021. *LiDAR drone applications in remote sensing vegetation studies*. Presented at the University of Louisville graduate remote sensing seminar. March 15<sup>th</sup> 2021.

**Pricope, N.G.** 2021. Integration of 3-D vegetation data into ecosystem modeling. Presented at the NASA Earth Surface and Interior (ESI) and Earth Science and Technology Office (ESTO) UAS Workshop. March 9-11<sup>th</sup> 2021.

**Pricope, N.G.** 2021. *The use of drone technology in university research and teaching.* Presented in the "Let's Talk Drones" webinar series of the Association for Unmanned Vehicle Systems International (AUVSI), North Carolina Chapter. February 26<sup>th</sup> 2021.

**Pricope, N.G.** 2020. *Fusing Multi-Source UAS-derived Data to Improve Project Planning and Wetlands Prediction Model.* Presented at the NCDOT UAS Research Steering Committee Meeting. November 30<sup>th</sup> 2020.

**Pricope, N.G.** 2020. Applications of unmanned aerial systems to monitoring and modeling beach and coastal processes. Presented at the North Carolina Beach Inlet and Waterways Association (NCBIWA), November 10<sup>th</sup> 2020.

**Pricope, N.G.** 2020. **Keynote speaker** in the invited session on *GEOINT in the Geosciences*. Presented at the 5<sup>th</sup> Edition of the International Geoscience Symposium, Bucharest, Romania, November 20-21<sup>st</sup> 2020.

**Pricope N.G.** 2020. Leveraging emerging technologies and interdisciplinary approaches to address land degradation and vulnerability at multiple system scales. Presented at the University of North Carolina Charlotte Center for Applied Geographic Information Science, October 28<sup>th</sup> 2020.

**Pricope, N.G.** 2020. *Quantitative Comparison of UAS-Borne LiDAR Systems for High-Resolution Forested Wetland Mapping.* Presented at the 2020 North Carolina Department of Transportation Research & Innovation Summit, October 13<sup>th</sup> 2020.

**Pricope, N.G.** 2020. **Keynote speaker** in the invited session: *Accelerating Intelligence from Imagery: how can remote sensing helps us address the COVID-19 pandemic?* Presented at the 2020 Esri Imagery Summit, October 6<sup>th</sup> 2020.

**Pricope, N.G.** 2020. *Plunging into virtual and hybrid work environments: challenges and opportunities.* Presented and moderated organized session at the GEOINTegration Summit, September 28<sup>th</sup> 2020.

**Pricope, N.G.** 2020. *The use of drones in hurricane response, invited panelist*. Presented at the Association of Unmanned Aerial Vehicles International (AUVSI) North Carolina Chapter, August 31<sup>st</sup> 2020.

**Pricope, N.G.** 2020. *Modeling and 3D Mapping with Drones*. Presented at the Association of Unmanned Aerial Vehicles International (AUVSI) North Carolina Chapter, July 17<sup>th</sup> 2020.

**Pricope, N.G.** 2020. *Emerging Technologies and Interdisciplinary Approaches in Successful Extramural Grant Acquisitions*. Presented at the 2020 UNCW Watson College of Education Grants Workshop, May 14<sup>th</sup> 2020.

**Pricope, N.G.** 2019. *Monitoring rangelands condition using drone and remote sensing technologies.* Presented at the Technology and Mobile Information for Monitoring Rangelands Workshop, Huancayo, Junin, Peru. June 12-14<sup>th</sup> 2019.

**Pricope, N.G.** 2019. *Harnessing the power of unmanned aerial systems for human and national security applications.* Presented at the Annual GEOINT Symposium, San Antonio, Texas. June 2-6<sup>th</sup> 2019.

**Pricope, N.G.** 2019. *Exposing land degradation and vulnerability through multiscale remote and unmanned aerial systems data.* Invited lecture presented to the Department of Geography, Environment and Sustainability, UNC Greensboro. March 22<sup>nd</sup> 2019.

**Pricope, N.G.** 2019. *Exposing land degradation and vulnerability through multiscale remote and unmanned aerial systems data.* Invited lecture presented to the Department of Geography, Oklahoma State University. January 14<sup>th</sup> 2019.

**Pricope, N.G.** 2018. *Multi-scale integration of drone and satellite imagery for ecosystem degradation modeling.* Invited lecture presented at the Congress on Research in Natural Protected Areas, National Agrarian University La Molina, Lima, Peru. Sept. 26<sup>th</sup>-28<sup>th</sup> 2018.

**Pricope, N.G.** 2018. *Fundamentals of Geographic Information Science for Data Science*. Presented to the UNCW Data Science Fall 2018 Cohort, September 3-6<sup>th</sup> 2018.

**Pricope, N.G.** 2018. Unmanned aerial vehicle-based thermal imaging applications for mosquito and vector control. Presented to the American Mosquito Control Association on August 31<sup>st</sup> 2018. Webinar.

**Pricope, N.G.** 2018. *Multi-temporal and multi-spectral data fusion applications for managed agro-ecosystem dynamics*. Presented at the ENVI Analytics Symposium, Denver, Colorado. August 22<sup>nd</sup> 2018.

**Pricope, N.G.** 2018. *Knowledge Co-Production in Socio-Ecological Systems: adaptive iterative research co-design*. Presented during the Global Land Program Working group on Co-Production of Sustainable Land Systems, June 19<sup>th</sup> 2018. Webinar.

**Pricope, N.G.** and Rosul\*, L. 2018. *The impacts of coastal inundation and sea level rise on New Hanover County's infrastructure and resources.* Invited talk for the Osher Lifelong Learning Institute (OLLI) Women on Wednesday meeting, Wilmington NC. February 28<sup>th</sup> 2018.

**Pricope, N.G.,** Rosul\*, L., and Hill\*, E., E. 2017. *Sea level rise effects on the infrastructure and resources in New Hanover County, NC.* Presented at the NC Climate Solutions Conference, UNCW, Wilmington NC. October 14<sup>th</sup> 2017.

**Pricope, N.G.,** Graybill\*, D. Applying Unmanned Aerial System (UAS) Technologies to Collect Remotely Sensed Data. Presented at the North Carolina Council of Graduate Schools (NCCGS) 2017 Graduate Education Day, Raleigh, North Carolina, May 16, 2017.

**Pricope N.G.**, Gaughan, A., Stevens, F., Hartter, J., Cassidy, L., and Salerno, J. **2016**. *Mixed methods approaches to studying humanenvironment dynamics in the Kavango-Zambezi Transfrontier Conservation Area*. Presented to the University of Namibia Katima Mulilo Campus, July 19<sup>th</sup> 2016.

**Pricope, N.G.** 2016. Approaches to integrating big data analytics into the adaptation to climate and environmental change field. Presented at the "Big Data Workshop" of the Romanian Diaspora Scientific Conference organized by the West University of Timisoara, Timisoara, Romania, April 26<sup>th</sup> 2016.

**Pricope, N.G.** 2016. Using spatio-temporal analyses and land systems science approaches to inform climate change adaptation across multiple scales. Presented to the Mathematics and Statistics Department, University of North Carolina Wilmington, April 14<sup>th</sup> 2016.

**Pricope, N.G.** 2015. *Disentangling environmental variability from land management decisions in the semi-arid savannas of eastern and southern Africa.* Presented to the Environmental Studies Department Science Seminar Series, University of North Carolina Wilmington, NC, January 30<sup>th</sup> 2015.

**Pricope, N.G.** 2014. *Human-environment dynamics in southern Africa's largest transfrontier conservation area.* Presented to the Environmental Studies Department, University of North Carolina Wilmington, NC. November 19<sup>th</sup> 2014.

**Pricope, N.G.** 2014. *Womanhood in post-communist Romania: opposing perspectives from the past and the present.* UNCW Osher Lifelong Learning Institute WOW Fall Program Series, November 12<sup>th</sup> 2014.

**Pricope, N.G.** 2013. *Climate change, landscape dynamics and population vulnerability in southern and eastern Africa.* Presented to the Department of Political Science and Program in Environmental Studies 'Research in Progress' colloquium series at the University of Oregon, Eugene, OR. March 7<sup>th</sup>, 2013.

**Pricope, N.G.** 2012. *Disentangling natural variability from land management decisions in southern Africa's largest transfrontier conservation area.* Presented to the Department of Geography Colloquium Series, University of California Santa Barbara. April 19<sup>th</sup>, 2012.

**Pricope, N.G.** 2011. Watershed-level monitoring to enhance resilience – the Ashland Forestry Resilience project in Ashland Creek Watershed, Oregon. Presented during the Southern Oregon Arts and Research (SOAR) panel on Local and Regional Partnerships in support for Science and Outreach. Ashland, OR. May 14<sup>th</sup> 2011.

**Pricope, N.G.** 2009. *The use of Geographic Information Science to assess rates of soil erosion and sediment delivery to streams: application in a watershed in KY, USA*. Presented to the Central Department of Botany, Tribuvhan University, Kathmandu, Nepal. December 5<sup>th</sup>, 2009.

**Pricope, N.G.** 2008. *The Florida Everglades: Restoring the River of Grass*. Presented to the University of Florida GEO 2200 Physical Geography Course. April 22<sup>nd</sup>, 2008. University of Florida, Gainesville, FL.

**Pricope, N.G.** 2007. *The use of Geographical Information Science for establishing best management practices for soil and water conservation*. Presented to the University of Florida GEO 2200 Physical Geography Course. October 14<sup>th</sup>, 2007.

# **International Presentations**

McMoran, D.J., Adam Langevin, Austin Whittaker, Priyanka Poospati, **Narcisa Pricope** and Gulustan Dogan. 2022. *Flood Prediction Modeling in the Lower Cape Fear River Using SAR Pixel Extraction*. Accepted for presentation at the IEEE – 2023 8<sup>th</sup> International Conference on Control and Robotics Engineering (ICCRE 2023). Niigata, Japan. April 14-17<sup>th</sup> 2023.

**Pricope, N.G.,** Daldegan, G., Zvoleff, A., Mwenda, K., Noon, M., and Lopez-Carr, D. 2022. Operationalizing an integrative socioecological framework in support of global monitoring of land degradation. Accepted to be presented at the American Geophysical Union Annual Meeting, Chicago IL. December 12-16<sup>th</sup> 2022.

Bailey, K., Vissat, L.L., Cassidy, L., Salerno, J., Gaughan, A., Stevens, F., **Pricope, N.G.,** and Hartter, J. 2022. *Household Vulnerability and Food Security Modeled Across a Southern African, Semiarid Land System*. Accepted to be presented at the American Geophysical Union Annual Meeting, Chicago IL. December 12-16<sup>th</sup> 2022.

Edwards, J., Dogan, G., and **Pricope, N.G.** 2022. *Comparison of machine and deep learning models for the prediction of land degradation*. Presented at the 21<sup>st</sup> IEEE International Conference on Machine Learning and Applications. Nassau, The Bahamas, December 12-15<sup>th</sup> 2022.

Teich, I., Fernandez, A., Lemann, T., Liniger, H., Herrick, J., Zvoleff, A., Daldegan, G., **Pricope, N.,** Lopez-Carr, D., Noon, M., Mwenda, K. 2022. "*Verification of degradation trends and monitoring of progress towards Land Degradation Neutrality (LDN) through the integration of free and open platforms and ground truthing: A national-level application to Colombia*". Presented at the Ecological Society of America (ESA) Living Planet Symposium 2022 in Bonn, Germany, May 24th, 2022.

Teich, I., Fernandez, A., Lemann, T., Liniger, H., Herrick, J., Zvoleff, A., Daldegan, G., **Pricope, N.,** Lopez-Carr, D., Noon, M., Mwenda, K. 2022. Colombia – Tools for Land Degradation (Tools4LDN) side event at the United Nations Convention to Combat Desertification (**UNCCD**) **15th session of the Conference of the Parties (**COP) Meeting in Abidjan, Cote D'Ivoire, Wednesday 18 May 2022.

Mwenda, K., **Pricope, N.G.,** Daldegan, G., Lopez-Carr, D., and Zvoleff, A. 2022. *Integrating environmental, population and livelihood datasets to quantify human dimensions of desertification, land degradation and drought (DLDD): Age and Gender Structures.* Submitted for presentation at the Population Association of America Annual Meeting, May 5-8<sup>th</sup> 2022.

**Pricope, N.G.,** Lopez-Carr, D., Mwenda, K., Sokolow, S., Daldegan, G., and Zvoleff, A. 2021. *Integrating freely available global population and drought datasets for land degradation and population vulnerability monitoring and reporting.* Presented at the IUSSP International Population Conference, Hyderabad, India. December 5-10<sup>th</sup> 2021.

**Pricope, N.G.** and Hidalgo, C. 2021. *Fusing high spatial resolution CubeSat imagery and socio-economic data to model coastal flood vulnerability*. Presented at the GeoInformation Forum 2021, July 5-9<sup>th</sup> 2021, Austria (poster contribution).

**Pricope, N.G.,** Minei<sup>\*</sup>, A., and Halls, J. *Constructing a coastal plains wetland delineation model using hyperspatial LiDAR data.* Accepted for and published in the peer-reviewed conference proceedings of the IEEE International Geoscience and Remote Sensing Symposium (IGARSS) 2021. July 12-16 2021.

Hidalgo, C. and **Pricope, N.G.** 2020. Integrating census data and high spatial resolution cube satellite imagery to identify leverage points for adaptation in coastal systems prone to flooding. U.S. Geospatial Intelligence Foundation GeoConnect virtual poster presentation, April 28<sup>th</sup> 2020.

**Pricope, N.G.,** Cassidy, L., Gaughan, A., Salerno, D., Stevens, F., Hartter, J. and Mupeta-Muyamwa, P. 2019. *Addressing integration challenges of transdisciplinary research in complex social-ecological systems.* American Geophysical Union (AGU) Annual Meeting, San Francisco, CA. December 9-13<sup>th</sup> 2019.

Providoli, I., Ehrensperger, A., Castella, J.-C., and **Pricope, N.G.** 2019. *How does the Global Land Program foster transformative science through knowledge co-production?"*. The International Transdisciplinary Conference 2019. Gothenburg, Sweden, Sept. 10-13<sup>th</sup> 2019.

Gaughan, A., Stevens, F., **Pricope, N.G.**, Drake\*, M., Bailey, K., Woodward\*, K. 2019. *Moving from a landscape footprint to spatial thumbprint: applying remote sensing to create unique signatures of household-level land use*. The Ecological Society of America Annual Meeting, INSPIRE session on Bridging human well-being and remote sensing. Louisville, Kentucky. August 11-16<sup>th</sup> 2019.

Stevens, F., Gaughan, A., **Pricope, N**., Salerno, J., Hartter, J., Cassidy, Lin; Drake, M., Weaver, A., Kolarik, N., Olsen, S., Bradshaw, A., Woodward, K. 2019. *Measuring household food security and variability in land functions across communities in a semiarid savanna system*. The Global Land Program Open Science Meeting, Bern, Switzerland. April 24-26<sup>th</sup> 2019.

**Pricope, N.,** Halls, J., and Hidalgo, C. 2019. *Enhancing socio-ecological resilience in low elevated coastal zones subject to recurrent inundation*. The Global Land Program Open Science Meeting, Bern, Switzerland. April 24-26<sup>th</sup> 2019.

Mapes, K. and **Pricope, N.G.** 2017. Locating shallow groundwater discharge to streams near concentrated animal feeding operations using aerial infrared thermography: a novel potential pollution detection method. American Geophysical Union (AGU) Annual Meeting, New Orleans, LA, December 11-15, 2017.

McNally, A., Shukla, S., Harrison, L., **Pricope, N.G.,** Peters-Lidard, C. 2017. *Hydrologic modeling for monitoring water availability in Eastern and Southern Africa*. American Geophysical Union (AGU) Annual Meeting, New Orleans, LA, December 11-15, 2017.

Knowlton, A., Leonard, L., **Pricope, N.**, and Eulie, D. 2017. *Effects of causeway construction on vegetation and sedimentation in North Carolina tidal marshes*. American Geophysical Union (AGU) Annual Meeting, New Orleans, LA, December 11-15, 2017.

McNally, A., Jung, H.C., Pervez, M.S., Shukla, S., **Pricope, N.G**., Harrison, L., and Peters-Lidard, C.D. 2016. *H21W-1459: Hydrologic modeling for monitoring water availability in Africa*. American Geophysical Union (AGU) Annual Meeting, San Francisco, CA, December 12<sup>th</sup>-16<sup>th</sup> 2016.

**Pricope, N.G.** 2016. Land Systems Science contributions to mitigation and adaptation to global environmental changes: from global approaches to local realities, Global Land Project 3<sup>rd</sup> Open Science Meeting, October 24-28<sup>th</sup> 2016, Beijing, China.

Le, Alyssa\* and **N.G. Pricope.** 2015. A novel application of agent-based modeling: projecting water access and availability using a coupled hydrologic agent-based model in the Nzoia Basin, Kenya. American Geophysical Union (AGU) Annual Meeting, San Francisco, CA, December 15-19<sup>th</sup> 2015.

Lopez-Carr, D., Mwenda, K., **Pricope, N.G.,** Kyriakidis, P., Jankowska, M., Weeks, J., Funk, C., Husak, G., Michaelsen, J. 2015. *A Spatio*temporal Vulnerability Analysis of Climate-Related Child Malnutrition in the Lake Victoria Basin. International Geoscience and Remote Sensing Symposium 2015 (IGARSS 2015), Milan, Itlay, July 26-31<sup>st</sup> 2015.

**Pricope, N.G.,** Gaughan, A., Rutina, L., Binford, M., All, J. 2015. *Spatio-temporal analysis of vegetation dynamics in relation to shifting inundation and fire regimes in a transboundary southern Africa savanna watershed*. Invited paper in the Analysis and Modeling of Landscape Change, Association of American Geographers Annual Meeting, Chicago, IL, April 21-25<sup>th</sup> 2015.

Burke, J.J.\* and **Pricope, N.G.** 2015. Assessing controls and patterns of surface inundation and identifying areas of flood-risk in a flood-pulsed savanna watershed in Botswana and Namibia using a regression-based model and thermal imagery. Association of American Geographers Annual Meeting, Chicago, IL, April 21-25<sup>th</sup> 2015.

**Pricope, N.G.**, Husak, G., Funk, C., and Lopez-Carr, D. 2014. *The climate-population nexus in the east African Horn region: emerging degradation trends in rangeland and pastoral livelihood zones*. Invited paper in the "Understanding the extents and impacts of land-use/land—cover change on hydrology I" session, American Geophysical Union (AGU) Annual Meeting, San Francisco, CA, December 15-19<sup>th</sup> 2014.

**Pricope, N.G.,** Shraddhanand Shukla, and Catherine Linard. 2014. *Identifying water insecurity hotspots in the Lake Victoria Basin of eastern Africa*. Presented in the session entitled "Observed and projected climate change impacts on water resources and agriculture II posters", at the American Geophysical Union (AGU) Annual Meeting, San Francisco, CA, December 15-19<sup>th</sup> 2014.

**Pricope, N.G.** and Andrea E. Gaughan. 2014. *Seasonally-adjusted vegetation change trajectories in differentially-managed transboundary dryland ecosystems in southern Africa.* The Global Land Project Open Science Meeting, Humboldt University, Berlin, Germany. March 19<sup>th</sup>-21<sup>st</sup> 2014.

Bremner, J., Lopez-Carr, D., **Pricope, N.G.,** Zvoleff, A. 2013. *Using New Methods and Data to Assess and Address Population, Fertility, and Environment links in the Lake Victoria Basin,* XXVII IUSSP International Population Conference, Busan, South Korea. August 26<sup>th</sup>-31<sup>st</sup>, 2013.

**Pricope, N.G.,** Marta Jankowska, David Lopez-Carr and Alex Zvoleff. 2013. *Integrating multi-temporal climate and health data to model children's health outcomes in the Lake Victoria Region of Africa*. Presented in session C12.19 Health and Environment, Global change and global health at the International Geographic Union (IGU) Congress Kyoto 2013. Kyoto, Japan. August 4<sup>th</sup>-9<sup>th</sup>, 2013.

**Pricope, N.G.,** Michaelsen, J., Lopez-Carr, D., Funk, C., and Husak, G. 2012. *Emerging landscape degradation trends in the East African Horn, Africa*. Paper accepted to the special session entitled: GC53E. Spatiotemporal Change Detection and the Data Infrastructure of Environmental Observatories III) at the American Geophysical Union (AGU) Annual Meeting, San Francisco, CA, December 3-7<sup>th</sup>, 2012.

Gibbes, C., **Pricope, N.G.,** Southworth, J., and Waylen, P. 2012. *An investigation of variability and change in the human and natural systems within a vulnerable semi arid region.* Presented in the session entitled: B53F. Resilience and Adaptation of Coupled Human and Natural Systems to Global Change II at the American Geophysical Union (AGU) Annual Meeting, San Francisco, CA, December 3-7<sup>th</sup>, 2012.

Lopez-Carr, D. and **Pricope, N.G., (co-first authors)** Jankowska, M., Husak, G., Funk, C., and Michaelsen, J. 2012. *Mapping population vulnerability to climate change in Africa*. IUSSP International Seminar on Population Dynamics and the Human Dimensions of Climate Change, Canberra, Australia, 27-29 November 2012.

**Pricope N.G.** 2012. *Time series of inundation in flood-pulsed wetlands from thermal and radar imagery*. 9<sup>th</sup> INTECOL International Wetlands Conference: Wetlands in a complex world. Orlando, FL. June 2012.

**Pricope, N.G.,** Michaelsen, J., Lopez-Carr, D., Funk, C., and Husak, G. 2012. *Mapping hotspots of population vulnerability to climate change in the East African Horn.* The US-International Association for Landscape Ecology (US-IALE) Annual Meeting, Newport, RI. April 2012.

**Pricope, N.G.** 2011. A spatio-temporal fire recurrence index for semi-arid savanna ecosystems in Southern Africa using moderate resolution satellite imagery. American Association for the Advancement of Science (AAAS) Annual Meeting. Washington DC. February 2011.

**Pricope, N.G.** 2010. A Thirty Year Evaluation of the Flooding in the Chobe River Basin, Botswana and Namibia. Flood Pulsed Wetlands International Symposium, Maun, Botswana February 1-5, 2010.

**Pricope, N.G.** 2008. A Measure of Ecological Resilience for Climate Change Adaptation in the Kavango-Zambezi Transfrontier Conservation Area, Botswana and Namibia. American Association for the Advancement of Science (AAAS) Annual Meeting. Boston, MA. February, 2008.

**Pricope, N.G.** 2006. *Linking Physical Change to Transboundary Resource Management*. Linking the Florida Everglades and the Okavango Delta Symposium, Harry Oppenheimer Okavango Research Center (HOORC), University of Botswana. Maun, Botswana. June, 2006.

Blanchard, B., Gaughan, A., Kanapaux, B., Martin, M., Pawlitz, **Pricope, N.G.,** R., Rajvanshi, N., Thakadu, O.T. 2006. *The Florida Everglades: Restoring the River of Grass*. Linking the Florida Everglades and the Okavango Delta Symposium, Harry Oppenheimer Okavango Research Center (HOORC), University of Botswana. Maun, Botswana. June, 2006.

# **National Presentations**

**Pricope, N.G.** and Halls, J.N. 2022. *Exploring Landscapes of Unequal Exposure to Risk: Mapping Poverty Clusters in Relation to Pluvial Flooding.* Presented (invited session) at the Universities Council on Water Resources (UCOWR) and The National Institutes for Water Resources (NIWR) Annual Water Resources Conference, Greenville SC. June 14<sup>th</sup> 2022.

Scopa, J. and **Pricope, N.G.** 2022. *Quantifying Nonpoint Source Discharge into Tidal Inlets from UAV Thermal Imagery in Ogden, North Carolina*. Presented at the United States Geospatial Intelligence Foundation (USGIF) Geospatial Intelligence (GEOINT) Symposium. April 2022.

Shivers, G.C. and **Pricope, N.G.** 2022. Assessing the Vulnerability of Wetlands to Identify Potential Locations for Nature-Based Solution Implementation to Mitigate Coastal Flood Inundation. Presented at the United States Geospatial Intelligence Foundation (USGIF) Geospatial Intelligence (GEOINT) Symposium. April 2022.

Dalton, E.G. and **Pricope, N.G.** 2022. *Comparing Metrics of Wetland vegetation Structure Derived from UAS LiDAR and Photogrammetric Collections.* Presented at the United States Geospatial Intelligence Foundation GEOINT Symposium. April 2022.

**Pricope, N.G.,** Minei, A., Chen, C., Wang, Y., and Halls, J. 2022. *Creating US Atlantic Coastal Plain wetlands prediction models using hyperspatial UAS LiDAR and multispectral data and machine learning approaches*. Presented at the American Association of Geographers Annual Meeting, New York City. Feb. 25<sup>th</sup> – March 1<sup>st</sup> 2022.

Bailey, K., Vissat, L.L., Cassidy, L., Salerno, J., Gaughan, A., Stevens, F., **Pricope, N.G.,** and Hartter, J. 2022. *A multi-country analysis of smallholder vulnerability to climate and land-use change in Africa*. Presented at the American Association of Geographers Annual Meeting, New York City. Feb. 25<sup>th</sup> – March 1<sup>st</sup> 2022.

Hutsler, T.S. and **Pricope, N.G**. 2021. Detecting Woody Plant Encroachment in Dryland Regions using Airborne Remote Sensing and In-Situ Data from the National Ecological Observatory Network (NEON). United States Geospatial Intelligence Foundation Geospatial Intelligence (USGIF GEOINT) Symposium. October 2021.

**Pricope, N.G.**, Woodward, K., Stevens, F., Gaughan, A., Hartter, J. 2021. *Modeling mixed land use in a communally managed African landscape: an integrated approach using remote sensing and participatory mapping*. Presented at the American Association of Geographers Annual Meeting, April 7<sup>th</sup>-11<sup>th</sup> 2021.

Cassidy, L., **Pricope, N.G.,** Gaughan, A., Salerno, J., Stevens, F., Hartter, J., Drake, M., and Mupeta-Munyamwa. 2021. *Interdisciplinary research as a socio-ecological system*. Presented at the American Association of Geographers Annual Meeting, April 7<sup>th</sup>-11<sup>th</sup> 2021.

Stevens, F., Gaughan, A., **Pricope, N.G.,** Salerno, J., Cassidy, I., Drake, M., Harter, J., Weaver, A., Kolarik, N., Olsen, S. 2021. *Linking land functions to household vulnerability and food security in a semiarid savanna system.* resented at the American Association of Geographers Annual Meeting, April 7<sup>th</sup>-11<sup>th</sup> 2021.

Bailey, K., Drake, M., Salerno, J., Cassidy, L., Gaughan, A., Stevens, F., **Pricope, N.G.,** Woodward, K., Maseka Lukawaya, H., Hartter, J. 2021. *Mapping natural resource collection areas from household survey data in southern Africa*. Presented at the American Association of Geographers Annual Meeting, April 7<sup>th</sup>-11<sup>th</sup> 2021.

Bailey, K., Cassidy, L., Salerno, J., Gaughan, A., Stevens, F., **Pricope, N.G.,** Hartter, J. 2021. *A multi-country analysis of smallholder vulnerability to climate and land-use change in Africa.* resented at the American Association of Geographers Annual Meeting, April 7<sup>th</sup>-11<sup>th</sup> 2021.

Gaughan, A., Salerno, J., Bailey, K., Stevens, F., Hilton, T., Cassidy, L., Drake, M., **Pricope, N.G.,** Hartter, J. 2021. *Human-wildlife interactions, livelihoods, and climate in a transfrontier conservation landscape.* resented at the American Association of Geographers Annual Meeting, April 7<sup>th</sup>-11<sup>th</sup> 2021.

Drake, M., Salerno, J., Langendorf, R., Gaughan, A., Cassidy, L., Stevens, F., **Pricope, N.G.,** Hartter, J. 2021. *The costs of elephant crop depredation exceed the benefits of trophy hunting in a community-based area of Namibia*. Presented at the American Association of Geographers Annual Meeting, April 7<sup>th</sup>-11<sup>th</sup> 2021.

Hidalgo<sup>\*</sup>, C. and **Pricope, N.G.** 2019. *Beyond the regulated floodplain: detecting floodwaters in southeaster North Carolina following Hurricane Florence using high-resolution CubeSat imagery*. Presented at the inaugural GEOINTegration Summit organized by the United States Geospatial Intelligence Foundation, Herndon VA. September 17-28<sup>th</sup> 2019.

Schaale, L., **Pricope, N.G.,** Baxley, B., and Danner, R. 2019. *Viewing habitat through another lens: bird nest-site selection and productivity across a beach thermal landscape.* Presented at the American Ornithology Society Annual Meeting, Anchorage Alaska. June 2019.

**Pricope, N.G.,** Mapes, K., Baxley\*, B., Woodward\*, K. and Olsen\*, S. 2019. *Multi-sensor assessment of the effects of varying processing parameters on UAS product accuracy and quality.* Presented at the American Association of Geographers Annual Meeting, Washington DC, April 3-7<sup>th</sup> 2019.

Hidalgo\*, C., **Pricope, N.,** Halls, J., Magolan, J, Rosul, L. 2019. *Validating vulnerability to inundation model using post-Florence CubeSat imagery in southeastern NC*. Presented at the American Association of Geographers Annual Meeting, Washington DC, April 3-7<sup>th</sup> 2019.

Baxley\*, B. and **Pricope, N.** 2019. *Modeling Phragmites australis rates of invasion using fused UAS and satellite data*. Presented at the American Association of Geographers Annual Meeting, Washington DC, April 3-7<sup>th</sup> 2019.

Woodward\*, K., **Pricope, N.G.,** Gaughan, A., Stevens, F., Kolarik\*, N., Drake\*, M. 2019. *Spatial patterns of vegetation structure in communally managed African savannas: Integrating social survey data with remote sensing and GIS*. Presented at the American Association of Geographers Annual Meeting, Washington DC, April 3-7<sup>th</sup> 2019.

Gaughan, A., Stevens, F., **Pricope, N.,** Salerno, J., Hartter, J., Cassidy, L., Drake\*, M., Weaver\*, A., Kolarik\*, N., Olsen\*, S., and Bradshaw\*, A. 2019. *Leveraging spatial science to measure household food security across communities in a semiarid African savanna*. Presented at the American Association of Geographers Annual Meeting, Washington DC, April 3-7<sup>th</sup> 2019.

Drake\*, M., Hartter, J., Gaughan, A., Stevens, F., **Pricope, N.** 2019. *How geographic resource distribution impacts human livelihoods in southern Africa*. Presented at the American Association of Geographers Annual Meeting, Washington DC, April 3-7<sup>th</sup> 2019.

Kolarik\*, N., **Pricope, N.**, Gaughan, A., Stevens, F., Woodward\*, K. 2019. *A multi-plot assessment of vegetation structure using a micro unmanned aerial system (UAS) in a semi-arid savanna environment*. Presented at the American Association of Geographers Annual Meeting, Washington DC, April 3-7<sup>th</sup> 2019.

**Pricope, N.G.**, Gaughan, A., Stevens, F., Salerno, J., Cassidy, L., Hartter, J., 2018. *Conceptualizing and operationalizing household vulnerability through environmental stressors and livelihood activities in the world's largest transfrontier conservation area.* Presented at the American Association of Geographers Annual Meeting, New Orleans, LA, April 10-14<sup>th</sup> 2018.

**Pricope, N.G.** 2018. *Geospatial Intelligence: Challenges and Opportunities*. Invited panelist at the American Association of Geographers Annual Meeting New Orleans, LA, April 10-14<sup>th</sup> 2018.

Stevens, F., Gaughan A., **Pricope, N.G**., Weaver\*, A., Olsen\*, S., Kolarik\*, N., Drake, Bradshaw\*, A. 2018. *Exposing land functions and vulnerability using multiscale satellite and UAS data*. Presented at the American Association of Geographers Annual Meeting, New Orleans, LA, April 10-14<sup>th</sup> 2018.

Rosul\*, L. and **Pricope, N.G.** 2018. *Modeling vulnerability to inland and coastal inundation in North Carolina using high-resolution finished floor elevations*. Presented at the American Association of Geographers Annual Meeting, New Orleans, LA, April 10-14<sup>th</sup> 2018.

Bradshaw\*, A., **Pricope, N.G.,** Stevens, F., Gaughan, A., Olsen\*, S. 2018. *Utilizing UAV and RapidEye imagery of a heterogeneous savanna landscape for structural vegetation analysis.* Presented at the American Association of Geographers Annual Meeting, New Orleans, LA, April 10-14<sup>th</sup> 2018.

Gaughan, A., Salerno, J., Cassidy, L., Hartter, J., **Pricope, N.G**. and Stevens, F. 2018. *Adaptive capacity framing for household vulnerability in a dryland system*. Presented at the American Association of Geographers Annual Meeting, New Orleans, LA, April 10-14<sup>th</sup> 2018.

McNally, A., Shukla, S., Harrison, L., **Pricope, N.G.,** Peters-Lidard, C. 2018. *Hydrologic modeling for monitoring water availability in Eastern and Southern Africa*. Presented at the American Meteorological Society 98<sup>th</sup> Annual Meeting, Austin, TX. January 8-11 2018.

**Pricope, N.G.** 2017. *Telecoupling in socio-hydrological systems: theoretical advances and practical ways forward.* Presented at the American Association of Geographers Annual Meeting, Boston, MA, April 2017.

**Pricope, N.G.** 2017. *Geospatial Intelligence and environmental security in extreme weather events*, invited panelist at the American Association of Geographers Annual Meeting, Boston, MA, April 2017.

**Pricope, N.G.** and Charter\*, H. 2017. *Three-dimensional visualizations of past, present and future spatially-distributed population datasets*. Presented at the American Association of Geographers Annual Meeting, Boston, MA, April 2017.

Hill, E. and **Pricope, N.G.** 2017. Assessing the impacts of sea level rise on critical infrastructure in New Hanover County, NC. Presented at the National Association of Environmental Professionals Annual Meeting, Raleigh, NC. April 6-8, 2017.

Johnson, A., Pabst, D., McAlarney, R., **Pricope, N.,** Long, Z., Cummings, E., Barco, S., Mallette, S., Hamilton, P., Kenney, R., Pettis, H., Knowlton, A., Good, C., Jackson, K., Rittmaster, K., McLellan, W. North Atlantic right whale (Eubalena glacialis) presence and distribution in the waters of Maryland, Virginia, and North Carolina from 1998 to 2015. 2017. Southeast and Mid-Atlantic Marine Mammal Symposium, Beaufort, NC, April 7-9, 2017.

**Pricope, N.G.,** Aukema, J., Husak, G., and Lopez-Carr, D. 2016. *A global analysis of spatial patterns of wet season precipitation and population changes in conservation priority regions.* Presented at the American Association of Geographers Annual Meeting, San Francisco, CA, March 29<sup>th</sup>-April 2<sup>nd</sup>, 2016.

**Pricope, N.G.** 2016. Invited Panelist in the session *Degradation and Greening in Drylands: two sides of the same coin?* at the American Association of Geographers Annual Meeting, San Francisco, CA, March 29<sup>th</sup>-April 2<sup>nd</sup>, 2016.

Le, Alyssa\* and **N. G. Pricope**. 2016. *Emerging trends in water resource modeling: including the coevolution of human-water systems with agent-based modeling*. Presented at 2016 AAG Annual Meeting. San Francisco, CA. April 2016.

Mainali, J\*. and **N. G. Pricope.** 2016. *Spatial assessment of climate vulnerability in Nepal: exploring the role of multiple scales and approaches*. Presented at 2016 AAG Annual Meeting. San Francisco, CA. April 2016.

Le, Alyssa\* and **N. Pricope.** 2015. *Increasing the Spatial Resolution and Accuracy of Precipitation Data within the Swat Model through the Incorporation of CHIRPS Data*. Geological Society of America Annual Meeting, Baltimore, MD, November 1-4<sup>th</sup> 2015.

Caplow, S., **N. Pricope**, A. Gaughan. 2014. *Community-Based Management and Conservation in Africa*. Association for Environmental Studies and Sciences Annual Meeting, New York, June 11-14, 2014.

**Pricope, N.G.,** Shraddhanand Shukla, and Catherine Linard. 2014. *Exploring changes in surface runoff in relation to precipitation and population density changes in the Lake Victoria Basin of Eastern Africa*. The Association of American Geographers Annual Meeting, Tampa, FL. April 9<sup>th</sup>-12<sup>th</sup> 2014.

**Pricope, N.G.,** Michaelsen, J., Lopez-Carr, D., Funk, C., and Husak, G. 2013. *Hotspots of population vulnerability to climate change in Africa*. Invited paper presentation to the <u>The AfriPop and AsiaPop Projects</u>: <u>Methods and Applications for Human Population</u> <u>Distribution Mapping</u> during The Association of American Geographers Annual Meeting, Los Angeles, CA, April 9-13<sup>th</sup>, 2013.

**Pricope, N.G.,** Gibbes, C., and Southworth, J. 2012. *The role of interacting fire and livestock increases in driving vegetation dynamics in the central Kavango-Zambezi Conservation Area*. The Association of American Geographers Annual Meeting. New York City, NY. February 2012.

**Pricope, N.G.** 2011. *More fires and less water: to what extent do they contribute to vegetation conversions in a southern African savanna?* The Association of American Geographers Annual Meeting. Seattle, WA. April 2011.

All, J., Miles, L., **Pricope, N.G.,** Humagain, K., and Oris, W. 2011. Assessing relative accuracies of ASTER and SRTM DEM datasets in the Himalayan Mountains. The Association of American Geographers Annual Meeting. Seattle, WA. April 2011.

**Pricope, N.G.** 2009. Detection of changes in flooding regime in a semi-arid savanna watershed in Southern Africa using AVHRR satellite imagery. The Association of American Geographers Annual Meeting. Las Vegas, NV. March, 2009.

**Pricope, N.G.** 2008. The impact of flood decreases on water availability for wildlife and humans in a semi-arid savanna watershed in Southern Africa. Pathways to Success 2008: Integrating Human Dimensions into Fish and Wildlife Management Conference, Estes Park, Colorado, October, 2008.

**Pricope, N.G.** and L. Venne 2008. Assessing the effectiveness of wildlife corridors in semi-arid savanna watersheds using remotesensing. Pathways to Success 2008: Integrating Human Dimensions into Fish and Wildlife Management, Estes Park, Colorado, October, 2008.

All, J.D. and **N.G. Pricope**. *Building climate change resilience through improved resource management.* Kentucky Academy of Sciences, 94<sup>th</sup> Annual Meeting, Lexington, KY. October-November 2008.

**Pricope, N.G.**, B. Blanchard, R. Pawlitz, A. Gaughan, and N. Rajvanshi. 2007. *Exploring Adaptive Management of In-Stream Flows in Five Watersheds*. IGERT Sustainability Conference. University of Alaska, Fairbanks, AK. October, 2007.

**Pricope, N.G**. 2007. Assessing Spatial Patterns of Sediment Transport in the Pitman Creek Basin, Kentucky. The Association of American Geographers Annual Meeting. San Francisco, CA. April, 2007.

**Pricope, N.G**. 2006. *Modeling Soil Erosion in the Upper Green River, Kentucky*. Association of American Geographers 102<sup>nd</sup> Annual Meeting. Chicago, IL. March, 2006.

**Pricope, N.G**. 2005. *Initial Parameters for Off-Site Soil Erosion Modeling.* Kentucky Geographical Information Sciences Conference. Bowling Green, KY. August, 2005.

**Pricope, N.G.** 2004. *Risk Assessment Parameters for Landslide Reactivation.* Bingham Geomorphology Conference. Lexington, KY. September 2004.

# **Regional Presentations**

**Pricope, N.G.** and Shivers, G. 2022. Wetland vulnerability metrics as a rapid indicator in identifying nature-based solutions to mitigate coastal flooding. Presented at the North Carolina Coastal Resilience Conference, Raleigh, NC. November 7<sup>th</sup> 2022.

Dalton, E. and **Pricope, N.G.** 2022. *Comparing Metrics of Wetland Vegetation Structure Derived from UAS Photogrammetric and UAS LiDAR Collections*. North Carolina Arc Users Group (NCAUG) Fall 2022 Meeting. Carolina Beach, NC. September 20-22, 2022.

**Pricope, N.G.,** Halls, J., Minei, A., Chen, C., and Wang Y. 2022. *Fusing multi-source UAS-derived data to improve coastal wetland type predictions*. North Carolina Arc Users Group (NCAUG) Fall 2022 Meeting. Carolina Beach, NC. September 20-22, 2022.

Edwards, J., Dogan, G. and **Pricope, N.G.** 2022. *Development and comparison of machine and deep learning models for the prediction of land degradation*. Presented at the Carolinas Women in Computing (CWIC) 2022 Conference at UNCW. April 8-9<sup>th</sup> 2022.

Shivers, G.C. and **Pricope, N.G.** 2021. *Identifying Wetland Ecosystem Vulnerability and Site Suitability for Nature-Based Solutions to Mitigate Coastal Flood Inundation*. American Society for Photogrammetry & Remote Sensing North Carolina Chapter (NCASPRS) Virtual Conference. November 2021.

Hutsler, T.S. and **Pricope, N.G.** 2021. Detecting Woody Plant Encroachment in Dryland Regions using Airborne Remote Sensing and In-Situ Data from the National Ecological Observatory Network (NEON). American Society for Photogrammetry & Remote Sensing North Carolina Chapter (NCASPRS) Virtual Conference. November 2021.

Halls, J., **Pricope, N.G.,** Minei, A., Eckhardt, C., Scopa, J. 2021. *Mapping coastal wetlands: a fieldwork design that compliments drone LiDAR data processing*. Presented at the 2021 NCAUG Virtual Conference. August 30<sup>th</sup> – September 2<sup>nd</sup> 2021.

Minei, A.; **Pricope, N.G**.; Halls, J.; Chen. C. 2021. *Development of a Coastal Plain Wetland Model using LiDAR Data*. UNCW CSURF Poster Showcase. April 21<sup>st</sup> 2021.

**Pricope, N.G.** and Shivers, G. 2021. Assessing nature-based options for flood resilient communities in North Carolina. Presented at the 2021 NC GIS Virtual Conference, February 16<sup>th</sup>-18<sup>th</sup> 2021.

**Pricope, N.G.,** Mapes\*, K., Baxley\*, B. and Woodward\*, K. 2019. *Applications and accuracy considerations for aerial drone research in coastal areas.* Presented at the Southeastern Division of the American Association of Geographers (SEDAAG) Annual Meeting, Wilmington NC. November 25<sup>th</sup> 2019.

Hidalgo\*, C. and **Pricope, N.G.** 2019. *Quantifying residential flood damage in Pender county, NC, following hurricane Florence using high resolution PlanetScope imagery.* Presented at the Southeastern Division of the American Association of Geographers (SEDAAG) Annual Meeting, Wilmington NC. November 25<sup>th</sup> 2019.

**Pricope, N.G.** and Hidalgo\*, C. 2019. *Modeling and validating residential flood vulnerability at high spatial resolution in North Carolina's coastal region*. Presented at the North Carolina Coastal Conference, Wilmington NC. November 19-20<sup>th</sup> 2019.

Synan\*, H. and **Pricope, N.G.** Validating multi-scalar remote sensing approaches for monitoring harmful algal blooms. Presented at the Global Marine Science Summit, Wilmington NC. October 10-11<sup>th</sup> 2019.

**Pricope, N.G.** and Hidalgo\*, C. 2019. *Validating an integrated coastal vulnerability model through knowledge co-production.* Presented at the North Carolina Planning Association Conference, Wilmington NC. October 9-11<sup>th</sup> 2019.

**Pricope, N.,** Halls, J., and Hidalgo\*, C. 2019. *Enhancing socio-ecological resilience in low elevated coastal zones subject to recurrent inundation*. North Carolina ArcGIS Users Conference (NCAUG) Annual Meeting, September 17-19<sup>th</sup> 2019.

**Pricope, N.G.,** Mapes, K., Baxley, B., and Woodward, K. 2019. *Multi-sensor assessment of the effects of varying processing parameters on UAS product accuracy and quality in coastal regions.* Presented at the Southeastern Geological Society of America Annual Meeting, Charleston, SC. March 28<sup>th</sup>-29<sup>th</sup> 2019.

Baxley, B. and **Pricope N.G.** 2019. *Investigation of Phragmites extent and potential drivers using UAS technology.* Presented at the Southeastern Geological Society of America Annual Meeting, Charleston, SC. March 28<sup>th</sup>-29<sup>th</sup> 2019.

Schaale, L., **Pricope, N.G.,** Baxley, B., and Danner, R. 2019. *Viewing habitat through another lens: bird nest-site selection and productivity across a beach thermal landscape*. Presented at the Southeastern Geological Society of America Annual Meeting, Charleston, SC. March 28<sup>th</sup>-29<sup>th</sup> 2019.

**Pricope, N.G.** 2018. *Geospatial and Unmanned Aerial Systems Applications to Environmental Research*. Presented at the North Carolina ArcGIS Users Group, Asheville, NC. August 30<sup>th</sup> 2018.

Mapes\*, Kerry L. and **Pricope, Narcisa G**. *Estimated impacts of concentrated animal feeding operations on stream water quality in a Coastal Plains watershed*. Presented to 5<sup>th</sup> UNCW Fall Showcase of Student Research and Creativity, UNC Wilmington, November 2017.

Mapes\*, Kerry L. and **Pricope, Narcisa, G**. *Modeling potential stream pollution near concentrated animal feeding operations, Lower Cape Fear River Basin*. Presented to North Carolina Arc Users Group Annual Meeting, Carolina Beach, NC, September 2017.

Rosul\*, L. and **Pricope, NG.** 2017. *Modeling vulnerability to inland and coastal inundation in North Carolina using highresolution finished floor elevations*. Presented at the Global Marine Science Summit, Wilmington, NC. November 2017.

Mapes\*, Kerry L. and **Pricope, N.G**. *Geospatial technologies: the future of riparian buffer assessments in the Cape Fear River Basin.* Presented to the first Cape Fear River Forum, Fayetteville State University and UNC Wilmington, September 2017.

Graybill\*, D., **Pricope**, **N**., *Applying Unmanned Aerial System (UAS) Technologies to Collect Remotely Sensed Data*. Presented at the North Carolina Council of Graduate Schools (NCCGS) 2017 Graduate Education Day, Raleigh, North Carolina, May 16, 2017.

**Pricope, N.G.** 2010. Detection and Attribution: disentangling environmental variability from land management decisions in the Chobe Basin, Southern Africa. Presented to University of Florida Geography Colloquium Series. September 3<sup>rd</sup> 2010.

Gaughan, A.E., Gibbes, C., Godwin, D., **Pricope, N.G.**, Rostant, L., Wolf, A. 2007. *The Caprivi/Chobe Field Season May-July 2007: Results of Preliminary Research*. Presented to Students in African Studies Association. September 7, 2007. University of Florida, Gainesville, FL.

Gaughan, A.E., Blanchard, B., Kanapaux, B., Padowski, J., Pawlitz, R., **Pricope, N.G.** and Muarry-Hudson, Mike. *Exploration of Coupled Human and Natural Systems in the Kavango-Zambezi Region*. Presented to Natural Resource Management Seminar, November 17, 2006. University of Florida, Gainesville, FL.

Pawlitz, R., **N.G. Pricope**, M.T. Brown, N. Rajvanshi, and B. Blanchard. 2006. *Drivers of Land Cover Change in the Kavango-Zambezi Region*. Land Use and Environmental Change Institute (LUECI) Annual Conference. Gainesville, FL. October 17, 2006.

**Pricope, N.G.** 2006. *Modeling Soil Erosion in the Upper Green River, Kentucky*. Presented to the Western Kentucky University Geography Seminar. May 5, 2006. Bowling Green, KY.

# SERVICE ACTIVITIES AND OUTREACH

Invited attendee, 16<sup>th</sup> Meeting of the Science-Policy Interface (SPI) of the United Nations Convention to Combat Desertification, UN Campus, Bonn Germany. December 13<sup>th</sup>-15<sup>th</sup> 2022.

**Invited Speaker for the Isaac Bear Early College Women Empowered through Education (WEE) Club** monthly club meetings on career pathways for women in STEM. December 6<sup>th</sup> 2022.

**Invited Panelist on the American Association of Geographers (AAG) Remote Sensing Group** 2022 Career Mentor Panel in Remote Sensing organized by the AAG Remote Sensing and Hazards, Risk and Disasters Specialty Group. November 11<sup>th</sup> 2022.

**Invited Reviewer** on the UNCCD Good Practice Guidance document: Barker, L.J., Rickards, N.J., Sarkar, S., Hannaford, J., KingOkumu, C., Rees, G. 2021. Good Practice Guidance for National Reporting on UNCCD Strategic Objective 3: To mitigate, adapt to, and manage the effects of drought in order to enhance resilience of vulnerable populations and ecosystems. United Nations Convention to Combat Desertification (UNCCD), Bonn, Germany.

**Session Convener and Primary Organizer,** *Fused Active and Passive UAS and Miniaturised Remote Sensing Capabilities and Applications for Mapping and Modeling Wetlands* session for the American Association of Geographers Annual Meeting, New York City. Feb. 25<sup>th</sup> – March 1<sup>st</sup> 2022.

**Invited Panelist,** Taking stock of the human dimensions of global change research: past, present and future. American Association of Geographers Annual Meeting, New York City. Feb. 25<sup>th</sup> – March 1<sup>st</sup> 2022.

Invited Panelist, the Engaged Teaching Institute Discussion Tables, New Faculty Orientation 2021-2022, August 5<sup>th</sup> 2021.

**Invited External Evaluator,** tenure and promotion packet, Department of Geography and the Environment, University of North Texas.

**Invited reviewer,** South Carolina Sea Grant Consortium, The Changing Face of Coastal South Carolina: Building a Resilient Future Program. July 2021.

**Invited Lead Trainer,** Spelman College (HBCU, Atlanta, GA), *Geographic Information Science for Interdisciplinary Higher Education Applications*. July 26<sup>th</sup> and 27<sup>th</sup> 2021.

**Invited Lead Trainer,** the 2021 Career and Technical Education (CTE) Summer Conference, organized by the NC Department of Public Instruction and NC Association of CTE. July 23<sup>rd</sup> 2021. Training entitled: *Learning mapping with Esri Drone2Map* (four part-training).

**UNCW attendee** as co-chair of the UNCW QEP Committee at the 2021 Virtual Institute on Quality Enhancement and Accreditation, organized by the SACSCOC, July 19<sup>th</sup>-22<sup>nd</sup> 2021.

**Invited eligibility evaluator,** European Union Executive Agency for Higher Education, Research, Development and Innovation Funding under the National Research Council of Romania, PCE2021 Competition. July 2021.

Invited reviewer, National Aeronautics and Space Administration (NASA) NSPIRES program, February-March 2021.

**Pricope, N.G. 2021.** *Balancing grey and green infrastructure solutions to mitigate coastal flooding.* Published by the North Carolina Sea Grant Office on May 18<sup>th</sup> 2021: https://ncseagrant.ncsu.edu/currents/2021/05/balancing-green-and-gray-infrastructure-solutions-to-mitigate-coastal-flooding/

**Invited outreach event:** Marshall Elementary After-School Drone Program, DoDEA Drone Project. Spoke to and demonstrated the use of drones in environmental work to a group of 30+ students. April 16<sup>th</sup> 2021.

**UNCW Co-Chair of the QEP Identification and Selection Committee** along with Carol McNulty and Kate Nooner, April 2021 to December 2023.

**Invited instructor, North Carolina Career and Technical Education (CTE), North Carolina Department of Public Instruction,** two-day workshop training high school teachers throughout the state in the use of drone data processing. July 23<sup>rd</sup> and August 10<sup>th</sup> 2021.

**Invited member, North Carolina Department of Public Instruction,** Trade, technology, engineering and industrial education committee steering the development of an UAS program at select (10) North Carolina high schools.

Invited Reviewer, 2021 Graduate Women in Science (GWIS) National Fellowship Program, contributed reviews for this prestigious national fellowship. April 5<sup>th</sup> to May 5<sup>th</sup> 2021.

NC Space Grant Invited Reviewer, reviewed and scored five NC Space Grant proposals (March 15- April 9<sup>th</sup> 2021)

**Invited member** of the Commission on Earth and Atmospheric Sciences of the Romanian National Council on Scientific Research. April 2021 to 2024.

**Pricope, N.G.** (lead guest editor), Eulie, D., Halls, J. and Ridge, J. (co-guest editors) on the invited special issue entitled *"Fused Active and Passive UAV and Miniaturised Remote Sensing Capabilities and Applications in Wetlands and Drylands"* in MDPI Remote Sensing (impact factor 4.5). January – September 2021.

**Pricope, N.G.** 2020. *UAVs in University Research,* interview/publication in Trajectory Magazine, published Nov. 12<sup>th</sup> 2020: https://trajectorymagazine.com/uavs-in-university-research/

**Pricope, N.G.**, Gaughan, A., Bailey, K., Kolarik, N. and Woodward\*, K. 2020. The KAZAVA Project: land, livelihoods, and climate – researching the nexus of change in the KAZA region. StoryMap Collection (5 chapters) featured by Esri on their home page on StoryMaps: https://storymaps.arcgis.com/collections/73d3b47c9305483f9b7866aed1bcd3e5

**Pricope, N.G.** 2019. *How fixed-wing drones revolutionized environmental research methods for UNCW.* published on Sept. 13<sup>th</sup> 2019 by SenseFly Magazine: https://waypoint.sensefly.com/fixed-wing-drones-revolutionize-uncw-environmental-research-methods-sensefly/

Invited panelist at the UNCW Marine Quest Youth Climate Action Day, December 5<sup>th</sup> 2020.

**Invited Session Organizer:** Fused active and passive UAV and miniaturized remote sensing capabilities and applications in wetlands and drylands. Proposed and accepted for the International Geoscience and Remote Sensing Symposium (IGARSS), Brussels, Belgium July 11-16<sup>th</sup> 2021.

Chair, UNCW Senate Engagement and Outreach Committee. Fall 2020 to Fall 2022.

UNCW Senate representative for the Earth and Ocean Sciences Department. Fall 2020-2021.

Elected UNCW Senate Steering Committee member, Fall 2020 to Fall 2022.

**Invited Expert Consultation,** the United Nations Environment Program (UNEP) for the development of the Environment and Climate Stress Index (ECSI). Spring 2020 onwards.

**Invited Editorial Committee** for the establishment of a new peer-reviewed academic journal entitled *Journal of Geospatial Intelligence and Analysis.* Spring 2020 onwards.

Lead investigator UNCW - The National Agrarian University La Molina, Peru Memorandum of Understanding (MOU) execution in Fall 2019 to establish long-term exchanges and collaborations with Peru's flagship agrarian university.

Lead founder and investigator UNCW Geospatial Service Group created with funding from the Office of Innovation and Commercialization at UNCW in Spring 2018. The service group not only acts as a research hub for contracts, it also spearheads community workshops and community service and outreach activities. Active January 2018 to Summer 2020 (Discontinued due to lack of support from SPARC leadership).

**Elected USGIF Tradecraft and Professional Development Committee Member** with the charge of shaping the future direction of the GEOINT profession and marketability of GEOINT certificate awardees.

**Invited 2020 USGIF GEOINTegration Summit Organizing Committee Member** to plan and guide the development and organization of the annual USGIF academic-government and industry interface meeting for accredited programs.

**Guest Editor in Chief, Journal of Land Use Science 2020:** special issue on "What is the transformative potential of co-production and transdisciplinary research in land systems science?". Co-guest editors: Isabelle Providoli and Albrecht Ehrensperger (University of Bern) and Jean-Christophe Castella (French Institute of Research for Development).

Invite speaker at the **2<sup>nd</sup> (2020) Women in STEM Forum** organized by the UNCW Cubesat and Women in Science and Engineering along with the Cape Fear Community College.

**Invited Evaluator,** the American Association of Geographers Annual Meeting Distinguished Emerging African Geography Scholar Award 2020.

Invited Promotion Evaluator, the Department of Geography at The Pennsylvania State University, Spring 2020.

**Invited Promotion Evaluator,** the Center for International Earth Science Information Network (CIESIN), The Earth Institute at Columbia University. Fall 2019.

Session Co-Organizer, American Association of Geographers Annual Meeting, "Change and Adaptation in Socio-Ecological Systems: A Coupled Human-Environment Perspective I, II and III". Denver, CO. April 3-7<sup>th</sup> 2020 (virtual session).

Invited Topic Editor for the MDPI journal Remote Sensing (Impact factor: 4.89), April 2020 to present.

**Elected Academic Planning Committee Member** for the United States Geospatial Intelligence Foundation (USGIF), two-year term beginning in September 2019.

**Editorial Board Member** of the *African Geographical Review (AGR)*, published in association with the American Association of Geographers (AAG). Five-year Term starting in August 2019.

**UNCW Drone Committee Member** with the charge of designing, implementing and enforcing drone-related activities and policies on the UNCW campus. Fall 2017 to present.

Invited external evaluator, the Ministry of Foreign Affairs of Denmark through the Danida Fellowship Center. Fall 2019.

**Invited presenter,** the **North Carolina Association of Floodplain Managers Annual Conference**, *Co-Producing Vulnerability to Inundation Modeling in Coastal North Carolina*. Wrightsville Beach, May 7<sup>th</sup> 2019.

**Co-Organizer,** Immersive session on Sustainable Land Co-Production at the Global Land Program Open Science Meeting, University of Bern, Switzerland, April 24<sup>th</sup> 2019.

Associate Editor, Land Degradation and Development Journal (I.F. 7.17) in the "Remote Sensing and Emerging Technologies" section.

**Organizer and trainer** for the first **UAV Operations and Analytics Workshop** attended by 9 community members from the Cape Fear Public Utilities Authority, the NC Fish and Wildlife Commission, the Cape Fear River Partnership and the UNCW Environmental Sciences Department. January 10-12<sup>th</sup> 2019.

**Primary convener and session chair** at the Southeastern Geological Society of America Annual Meeting, Charleston, SC: UAV/Drone Technology and Spatial Metrics for the Coastal Zone session. March 28-28, 2019.

**Training webinar for the American Mosquito Control Association,** Young Professionals Network: Unmanned Aerial Vehicle-based Thermal Imaging for Mosquito and Vector Control. August 31<sup>st</sup> 2018.

**Primary convener and chair** at the American Association of Geographers Annual of the session: UAS Symposium IV: Advances in UAV-based remote sensing applications and methods in land systems science. April 10-14<sup>th</sup> 2018, New Orleans, LA.

**Invited Core Group Steering Member** for the Global Land Project and Future Earth International Knowledge Co-Production Working Group. Fall 2018 to present.

**Steering Committee Member (external, international)** on the BELSPO STEREO 3 (Belgian Science and Policy Office, Support to the Exploitation and Research of Earth Observation Data, III) funded project entitled: Understanding Turning Points in Dryland Ecosystem Functioning (U-TURN), 2017-2021.

**Invited international expert panelist** for the Belgian Science and Policy Office (BELSPO) STEREO 3 Program (Support to the Exploitation and Research of Earth Observation Data, III), May-June 2016. In-person expert panelist in Brussels, Belgium, June 14-16<sup>th</sup> 2016.

**Primary convener** at the American Association of Geographers Annual Meeting of the session: "Shifting Hydroperiods - conflicts and opportunities arising from dynamics of inundation in wetlands and seasonally-inundated floodplains", April 5-9<sup>th</sup> 2016, Boston, MA.

**Primary convener** at the Global Land Project 3<sup>rd</sup> Open Science Meeting of the session *"Land Systems Science contributions to mitigation and adaptation to global environmental changes: from global approaches to local realities"*, October 24-28<sup>th</sup> 2016, Beijing, China.

**Primary convener** at the American Geophysical Union (AGU) Annual Fall Meeting of the session "*The land systems science - earth systems modeling nexus: global actors and drivers, and local land change in a socio-environmentally teleconnected world*", December 15-19<sup>th</sup>, 2015, San Francisco CA.

**Pricope, N.G.** 2016. Primary session convener/organizer of the *Human dimensions of Arctic Change* AAG Session. American Association of Geographers Annual Meeting, San Francisco, CA, March 29<sup>th</sup>-April 2<sup>nd</sup>, 2016.

UNCW Summer Undergraduate Research & Creativity Awards (SURCA) campus-wide elected reviewer. April 10-17<sup>th</sup> 2015.

**Pricope. N.G.,** Waity, J. *Mapping and Analysis for the Provision of Social Services*. Project presented with graduate students at the <u>Social Entrepreneurship Conference</u>, Greensboro, NC, February 11<sup>th</sup> 2015.

**Pricope, N.G.** *Multi-flavored cultures across the world: travel experiences to three continents.* Invited lecture at the <u>Cape Fear</u> <u>Academy</u> Third Grade groups, November 14<sup>th</sup> 2014.

**Pricope, N.G.** Womanhood in post-communist Romania: opposing perspectives from the past and the present. UNCW Osher Lifelong Learning Institute WOW Fall Program Series, November 12<sup>th</sup> 2014.

National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP) Review Panelist, GRFP Social and Behavioral Sciences Panel. January 2015, Washington DC.

Department of Defense (DoD) and the American Society for Engineering Education reviewer/panelist for the National Defense Science and Engineering Graduate Fellowship Program, February, 2015.

Elected committee member on UNCW Provost's Advisory Council (2014-2015)

Faculty Senate Research Committee (2014-2015) International Program Advisory Council (2014-2016), deferred Geology, Geography, and Geology Graduate Student club co-advisor Geography Curriculum Committee (2013-present) University Innovation Council Enrollment Forecasting Proposal Competition Reviewer (invited by Dr. Ron Vetter, November 2014)

**Chair** of the UNCW Department of Geography and Geology **Public Relations Committee** (2014-2015) and moderator of the departmental Facebook page and other advertising outlets.

UNCW SeaHawk Saturday Recruiting Event for the Geography and Geology Department. September 20<sup>th</sup>, 2014.

**Co-chair** of the <u>Natural environment, climate change, disasters and its impact on human society in South Asia</u> session at the International Geographical Union (IGU) Annual Meeting in Krakow, Poland, August 17<sup>th</sup>-22<sup>nd</sup>, 2014.

Elected <u>Chair</u> (2014-2016) of the Association of American Geographers (AAG) Human Dimensions of Global Change (HDGC) Specialty Group.

UNCW ETEAL: Experiencing Transformative Education through Applied Learning Departmental Liaison for academic years 2014-2015.

UNCW Summer Undergraduate Research & Creativity Awards (SURCA) campus-wide elected reviewer. April 21-27<sup>th</sup> 2014.

UNCW SeaHawk Saturday Recruiting Event for the Geography and Geology Department. April 5<sup>th</sup>, 2014.

UNCW Information Literacy Rubric Norming Session and Scoring Event, February 14<sup>th</sup> and 21<sup>st</sup>, 2014.

Department of Defense (DoD) and the American Society for Engineering Education reviewer/panelist for the **National Defense** Science and Engineering Graduate Fellowship Program, February 1 to 15<sup>th</sup>, 2014.

Oregon Climate Change Research Institute (OCCRI) Affiliate Faculty.

National Science Foundation (NSF) **Research Coordination Network in Science, Engineering and Education for Sustainability (RCN-SEES)** program panelist. May 9<sup>th</sup>-11<sup>th</sup> 2013, Arlington, VA.

National Science Foundation (NSF) **Graduate Research Fellowship Program (GRFP)** Review Panelist, GRFP Ecology Panel. January 9<sup>th</sup>- 11<sup>th</sup> 2013, Washington DC.

Southern Oregon University Faculty Senate, September to December 2012.

Collaborative work with the **Ashland Forestry Resilience Project**, Ashland, OR and undergraduate students at Southern Oregon University.

American Association of Geographers. Session Organizer. Session: *Coupled Human-Environment Interactions in Drylands Systems,* Washington DC, April 14-18 2010.

Central Department of Botany, Tribhuvan University, Nepal. **Fieldcamp Co-Leader** – *Remote Sensing Field Course for Alpine Vegetation Monitoring*. Manaslu Conservation Area, Himalaya, Nepal – December 8 - 27 2009.

Central Department of Botany, Tribhuvan University, Nepal. Fieldcamp Co-Leader – Biodiversity Inventory and Remote Sensing Fieldcamp. Langtang National Park, Himalaya, Nepal – September 8-20 2009.

American Association of Geographers. Session Chair. Session: *Environmental and Humanitarian Applications of Geospatial Technologies* I and II, Las Vegas, NV March 22 – 27, 2009.

American Association for the Advancement of Science (AAAS). Session Aide. AAAS Annual Meeting, Chicago, IL, USA. February, 12 – 16, 2009.

**Symposium Organizer** – "Water Resources and Ecosystem Services for Human-Wildlife Coexistence ", part of Pathways to Success 2008: Integrating Human Dimensions into Fish and Wildlife Management, Estes Park, Colorado, September 28 – October 2, 2008.

American Association for the Advancement of Science (AAAS). Session Aide. AAAS Annual Meeting, Boston, MA, USA. February 14 – 18, 2008.

**Symposium Organizer** – "UF Water Institute Water Symposium" – Florida Challenges and Global Solutions for Sustainable Water Resources, February, 2008.

Workshop Co-Organizer – Key Challenges in the Kafue National Park, Zambia. University of Zambia, Lusaka. July 2007.

Hoffman Environmental Research Institute, Western Kentucky University, and Puerto Rico Division of Natural Resources, Puerto Rico. **Volunteer Researcher** – *Resource Management and Cave Mapping on Isla de Mona, Puerto Rico,* May 12-28, 2007.

Workshop Co-Organizer – Current Issues and Challenges in the Management of the Okavango Delta, Botswana. Harry Oppenheimer Okavango Research Center Workshop. Maun, Botswana. June, 2006

**Treasurer** of the Green River Grotto Caving Club, National Speleological Society, 2005-2006. **Secretary** of the Graduate Geoscience Society, Western Kentucky University, Bowling Green, KY, 2005-2006.

Work and Travel International Exchange Student, Corolla, North Carolina. June - October, 2003. Socrates-Erasmus International Exchange Student, University of Glasgow, United Kingdom. October – December 2002.

# EDITORIAL COMMITTEES

Associate Editor, Land Degradation and Development Journal (I.F. 7.17) in the "Remote Sensing and Emerging Technologies" section.

<u>Editorial Board Member:</u> JSM Environmental Science and Ecology (SciMed Central, The Open Remote Sensing Journal and Research Journal of Environmental Sciences

Reviewer for the Environmental Systems Research Institute (ESRI) Press new publication: *Making Spatial Decisions Online*, 2014-2015.

Article Reviewer: PLoS One, Land (SSN 2073-445X), International Journal of Biometeorology, Springer Inc., Environmental Management, Springer Inc., Journal of Environmental Monitoring and Assessment, Springer Inc., The African Studies Quarterly Journal., British Journal of Environment and Climate Change, Applied Geography, Earth Interactions, Latin American Journal of Aquatic Research, Photogrammetric Engineering and Remote Sensing, Journal of Land Use Science, Annals of the Association of American Geographers, Regional Environmental Change, Climatic Change, Journal of Environmental Management, International Journal of Remote Sensing, Remote Sensing, Land, International Journal of Digital Earth, Population and Environment, Land Degradation and Development, Earth System Science Data (EU Copernicus Publications).

Editorial committee member in the process of publication of the 4<sup>th</sup> Edition of *Physical Geography* by Harm de Blij, Peter Muller, Jim Burt, and Joe Mason, Oxford University Press (2010-2012).

# **PROFESSIONAL DEVELOPMENT ACTIVITIES**

The **Post-Construction Best Management Practices (BMP) Inspector Certification**, offered by the Clemson Cooperative Extension along with the Clemson Public Service and Agriculture service. March 10<sup>th</sup> to April 23<sup>rd</sup> 2021. Certification acquired.

The **GIS Certification Institute GIS Professional Certification (GISP)** obtained on June 25<sup>th</sup> 2020 (valid until June 25<sup>th</sup> 2023). Certification number: 160863.

The Federal Aviation Administration (FAA) small UAS Certified Remote Pilot, certificate number: 3973893. Valid Feb. 23<sup>rd</sup> 2017 to June 20<sup>th</sup> 2022.

Association of American Colleges and Universities (AACU) Project Kaleidoscope 2019 PKAL STEM Leadership Institute fellow (competitive application from national pool), Adamstown, MD. July 16-21<sup>st</sup> 2019.

Fulbright Scholar Pre-Departure Orientation, Africa. Northwestern University, Chicago, IL. July 9-13<sup>th</sup> 2019.

**SAR Demystified and How to get the most out of analytics without coding workshops** at the ENVI Analytics Symposium, Denver, CO. august 21<sup>st</sup> 2018.

Pachamama Alliance Facilitator Training Symposium, Medford, Oregon, October 11-12<sup>th</sup>, 2014.

**EXELIS ENVI for Vegetation Analysis** Training in Verndon, VA. Nov. 3-5<sup>th</sup>, 2013. **American Geophysical Union** Introduction to the Web-enabled Landsat Data (WELD) products using open source software, Geographic Information Science Center of Excellence, South Dakota State University, Brookings. December 6<sup>th</sup>, 2012.

**Brown International Advanced Research Institutes (BIARI)** Climate Change and its Impacts: Regional Coupled Human-Natural Systems and Evidence-Based Policy Making. On location, intensive 2-week workshop in Providence, RI. June 9<sup>th</sup>-23<sup>rd</sup>, 2012.

United States – International Association for Landscape Ecology (US-IALE) Annual Meeting – National Aeronautics and Space Agency (NASA) MSU – Workshop on Land Surface Phenology, Newport, Rhode Island, April 8-11, 2012.

United States – International Association for Landscape Ecology (US-IALE) Annual Meeting – **Spatial Analysis and Modeling in R**, Newport, Rhode Island, April 8-11, 2012.

Global Land Project (GLP) Open Science Meeting – Land Systems, Global Change and Sustainability. Workshop **"Land Change Modeling Methods: calibration, validation and extrapolation"** offered by Professor R G Pontius Jr. Tempe, Arizona, October 17-19, 2010.

# **GRADUATE RESEARCH ADVISING (Chair of thesis committee)**

# M.S. Thesis Advising (primary thesis advisor)

**Farlow, L.** In progress. Creating the first fire needs assessment for North Carolina. Master of Geoscience, portfolio option. UNC Wilmington.

**Connell, P.** 2022 (completed). Demonstrating the usability of new generation airborne quality level 1 LiDAR and multispectral data for coastal wetland classification and modeling. Master of Geoscience, thesis option. UNC Wilmington.

**Hutsler, T**. 2022 (completed). Comparing Methods of Deriving Vegetation Structure for Models of Woody Plant Cover in Semi-arid Regions of the United States and Southern Africa. Master of Geosciences Program, thesis option. UNC Wilmington.

**Giddens, J.** 2022 (completed). A Comparison of Pixel vs. Object-Based Wetland Classification Using High-Resolution Multispectral and LiDAR Imagery. Master of Geosciences Program, thesis option. UNC Wilmington.

**Shivers, G.** 2022 (completed). Computing an Ecosystem-Based Wetland Vulnerability Index to Identify Nature-Based Solutions for Coastal Wetland Inundation Management. Master of Geosciences Program, thesis option. UNC Wilmington.

**Scopa, J**. 2022 (completed). Using Thermal Imaging with Unmanned Aerial Vehicles to Visualize and Quantify Non-Source Point Discharge into Tidal Creeks. Master of Geosciences Program, thesis option. UNC Wilmington.

**Minei, A.** 2021 (completed). Evaluating UAS and airborne LiDAR performance and machine learning in generating a Coastal Plain Wetland Delineation Model using Hyperspatial LiDAR DEM Derivatives. Master of Geosciences Program, thesis option. UNC Wilmington.

**Baxley, B.** 2021 (completed). Using fused remote sensing data and geospatial modeling to assess risk of *Phragmites* invasion in NC wetlands ecosystems. Master of Geosciences Program, thesis option. UNC Wilmington.

**Pye, E.** 2021 (completed). Costs, benefits and threats associated with grey infrastructure in coastal systems. Master of Geosciences Program, portfolio option. UNC Wilmington.

**Synan, H.** 2021 (completed). Validating multi-scalar remote sensing approaches for monitoring harmful algal blooms. Master of Geosciences Program, thesis option. UNC Wilmington.

**Hidalgo, C.** 2020 (completed). Validating a flood vulnerability model using high spatial resolution CubeSat imagery and socioeconomic data in a US Coastal region. Master of Geosciences Program, thesis option. UNC Wilmington.

**Woodward, K.** 2020 (completed). Modeling mixed land use in a communally managed southern African landscape: integrating remote sensing and participatory mapping. Master of Geosciences Program, thesis option. UNC Wilmington.

**Rosul, L.** 2018 (completed). High-resolution socio-economic vulnerability assessment in coastal North Carolina using geospatial modeling. Master of Geosciences Program, thesis option. UNC Wilmington.

**Mapes. K**. 2018 (completed). Modeling the impact of CAFOs and land use changes on water quality in the Cape Fear Basin, NC. Master of Geosciences Program, thesis option. UNC Wilmington.

**Olsen, S.** 2017 (completed). UAV-based remote sensing techniques for estimating vegetation parameters at high spatial resolution. Master of Geosciences Program, non-thesis option. UNC Wilmington.

**Graybill, D.** 2017 (completed). Wrangling Raw Imagery Data from Various Satellite and Unmanned Aerial Vehicle Sensors. Master of Geosciences Program, non-thesis option. UNC Wilmington.

**Le, A.M.** 2016 (completed). Emergent water resource modeling: the inclusion of spatio-temporal dynamics into socio-hydrologic analysis. Master of Geosciences Program, thesis option. UNC Wilmington. NSF Graduate Research Fellowship Applicant, Fall 2014.

Mainali, J. 2016 (completed). Comparative drought vulnerability assessment using mixed methods in the Nepali Himalaya. Master of Geosciences Program, thesis option. UNC Wilmington. Nepali Fulbright Scholar.

**Burke, J. J.** 2015 (completed). Modeling Surface Inundation and Flood Risk in a Flood Pulsed Savannah: Chobe River, Botswana and Namibia. Master of Geosciences Program, thesis option. UNC Wilmington. Geological Society of America funded fieldwork in southern Africa.

# Ph.D. Thesis Committee Member

**Estrada Zuniga, A.C.** 2020 (completed). Bio-communities and biomass estimation using multispectral sensors and unmanned aerial systems in the dry rangelands of Peru/ Comunidades vegetales y estimacion de biomasa con sensors multispectrales y sistems aereos no tripulados en Pastizales de puna seca. Universidad Nacional Agraria La Molina, Peru. Dissertation advisor: Dr. Javier Naupari Vasquez.

# M.S. Thesis Committee Member

**Katjiuongua, G.** In progress. Assessing land cover change in northern Namibia with emphasis on the five NILALEG focal landscapes. Masters of Science in Natural Resources Management, University of Namibia Katima Mulilo, Namibia. Advisor: Dr. Ezequiel Fabiano (UNAM).

**Eckhardt, C.** 2021. Testing flight parameter variations for UAV-mounted LiDAR missions for vegetation analysis in the coastal wetlands on southeastern North Carolina. Master of Geoscience program, UNCW (portfolio). Co-advisors: Dr. Joanne Halls and Dr. Narcisa Pricope.

**Geiss, C**. 2021. Dynamic Modeling of the Geomorphologic Response of Masonboro Island, NC to Oceanic and Atmospheric Forcings. Master of Geosciences Program, UNC Wilmington. Advisor: Dr. Joanne Halls.

**Skinner, J**. 2021. Vulnerability assessment of the North Carolina coast. Master of Geosciences Program, UNC Wilmington, portfolio option. Advisor: Dr. Joanne Halls.

Weaver, A. 2021. Statistical modeling of population change and distribution in the Zambezi region of Namibia. Master of Geography Program, University of Louisville, KY. Advisor: Dr. Andrea Gaughan.

**Brown, S**. 2021. Using satellite data and the extended Kalman Filter to improve analysis of historical shoreline trends from 1986 to the present and future projections along the U.S. Atlantic coast. Master of Geosciences Program, UNC Wilmington. Advisor: Dr. Joe Long.

**Collins, A.** 2020. Bathymetric Inversion from Synthetic Sea Surface Imagery using Machine Learning. Master of Geosciences Program, UNC Wilmington. Advisor: Dr. Doug Gamble.

**Schuman, J.** 2020. Understanding seasonal dynamics of zooplankton in North Carolina's lacustrine environments. Master of Marine Biology Program, UNC Wilmington. Advisor: Dr. Joe Covi.

**Schmidt, C**. 2019. Modeling soil erosion and impacts on water resources in the Peruvian Andes Mountains. Master of Geography Program, Western Washington University, Bellingham, WA. Advisor: Dr. John D. All.

**Kolarik**, **N**. 2019. A multi-plot assessment of vegetation structure using a micro unmanned aerial system (UAS) in a semi-arid savanna environment. Master of Geography Program, University of Louisville, KY. Advisor: Dr. Andrea Gaughan.

**Knowlton, A**. 2018. Remote sensing of vegetation and geomorphology to study the effects of causeway removal in NC. Master of Geosciences Program, UNC Wilmington. Advisor: Dr. Lynn Leonard.

**Putnam, J.** 2015. Shelter use during hurricane evacuations with the use of GIS in emergency management in Eastern NC. Geosciences Program, University of North Carolina Wilmington. Advisor: Dr. Joanne Halls.

**Sciance**, **B**. 2014. Spatial and temporal changes in extent and duration of flooding in the Ganges-Brahmaputra Delta, Bangladesh. Geosciences Program, University of North Carolina Wilmington. Advisor: Dr. Scott Nooner.

# **Undergraduate Thesis Advising, Awards, Presentations**

**Dalton, E.** 2022. Comparing Metrics of Wetland vegetation Structure Derived from UAS LiDAR and Photogrammetric Collections (honors thesis chair). UNCW.

Whitehouse, L. 2021. Thermal-based indices for wetland vegetation mapping. Department of Earth and Ocean Sciences Honors thesis (honors thesis chair). UNCW.

**Bradshaw, A.** 2019. Modeling vegetation dynamics in the Kavango-Zambezi Transfrontier Region of southern Africa. Department of Earth and Ocean Sciences Honors thesis (honors thesis chair). UNCW.

Hann, Ashley. 2017. Balancing production and fisher attraction on artificial reefs: model analysis. Department of Biology and Marine Biology Honors Thesis (committee member), University of North Carolina Wilmington.

**Johnson, A.C.** 2017. Modeling factors that predict the distribution of whales in the Atlantic Ocean. Department of Biology and Marine Biology Honors Thesis (committee member), University of North Carolina Wilmington.

**Wells, J.** 2017. Mapping Hydrologically-Sensitive Environments in Alpine Forests of the Western United States. UNCW SURCA proposal award.

Marsh, G. 2016. Quantifying and visualizing the carbon footprint of small businesses in downtown Wilmington, NC. DIS Advisor: Dr. Pricope. Presented at the UNCW Fall Research Showcase Symposium, Nov. 21-22, 2016.

**Charter, H.P.** (supervisor Pricope, N.G.). 2016. UNCW CSURF Travel Award to present at the American Association of Geographers Annual Meeting, Boston, MA. April 2017.

**Melvin, F.** 2015. Fusing Multi-Sensor Imagery to Assess Shifts In Smallholder Farming Practices in Response to Conservation Priorities in the Mayuni Conservancy, Namibia. Research project presented at the UNCW 2015 Spring Research and Creativity Symposium.

Anderson, L. 2015. Fire Suppression In The Sierra Nevada: Management Efforts And Environmental Impacts. Research project presented at the UNCW 2015 Spring Research and Creativity Symposium.

**Tremblay, E.** 2015. Stormwater Management in Anacostia Watershed Using LIDs (Low Imprint Designs and Low Impact Development). Research project presented at the UNCW 2015 Spring Research and Creativity Symposium.

**Dale, K.** 2015. Addressing The Efficiency of the Comprehensive Land Use Plan of Harpers Ferry, WY. Research project presented at the UNCW 2015 Spring Research and Creativity Symposium.

**Meyer, D.** 2015. Examining Health Conditions, the Expected Population Increase, and the Future of Alameda County. Research project presented at the UNCW 2015 Spring Research and Creativity Symposium.

**Duffy, C.** 2015. New Urbanist Design in Five Points, El Paso, Texas. Research project presented at the UNCW 2015 Spring Research and Creativity Symposium.

**Richter, Aleece**. 2011. *Comparison of the flow hydraulics and bedload grain size distribution of the East and West Forks of Ashland Creek, Southwestern Oregon*. Capstone Thesis. Advisor: Dr. Narcisa G. Pricope. Department of Environmental Studies, Southern Oregon University, Ashland, OR.

Twitchell, M., Boyd, M., and Smith, E. 2013. *Reestablishing Calibration Monuments for Rosgen Stream Classification at North Mountain Nature Center, Ashland, Oregon.* Capstone Thesis. Advisor: Dr. Narcisa G. Pricope. Department of Environmental Studies, Southern Oregon University, Ashland, OR.

**Ives, J.** 2013. *Variability of rainfall interception rates as a function of canopy cover in the Ashland Creek Watershed*. Capstone Thesis. Advisor: Dr. Narcisa G. Pricope. Department of Environmental Studies, Southern Oregon University, Ashland, OR.

# Graduate and Undergraduate Directed Independent Study Courses Supervised

GEO591: Adaptation in East Africa	Fall 2014
GEO591: Field research in southern Africa	Fall 2014
GEO591: MODIS thermal imagery analysis for inundation mapping	Summer 2014
GGY491: Object-based image analysis and data fusion	Spring 2015
GGY491: Remote sensing of fires and applications	Summer 2015
GEO591: Introduction to Python (2 graduate students enrolled)	Spring 2016
GEO591: Fundamentals of GIS (grad student in Statistics)	Spring 2016
GGY491: Using GIS to assess fracking effects in the USA	Spring 2016
GLY491: Modeling sea level rise New Hanover County (2 students)	Spring 2016
GEO591: Research Methods in Geosciences	Fall 2016
GEO591: UAV-data processing	Fall 2016
GGY491: GIS modeling for marine mammal distribution	Fall 2016
GGY491: GIS techniques for carbon footprint mapping	Fall 2016
GGY491: Modeling urban expansion using GIS	Spring 2017
GGY491: Mapping the Coffee Value Chain in Eastern Democratic Republic of Congo	Spring 2017
GGY491: GIS modeling for marine mammal distribution (II)	Spring 2017
GGY491: Modeling to estimate snow cover extent change Peru	Fall 2017
GLY491: Modeling effects of impervious cover on water quality	Fall 2017
GGY499: Honors work in Geography (human-environment interactions modeling	Fall 2017
GEO597: Final project in Geosciences (southern Africa exposure quantification)	Fall 2017
GEO599: Thesis hours (2) (modeling effects of CAFOs on water quality in NC)	Fall 2017
GEO591: Field methods for vegetation dynamics modeling in NC watersheds	Spring 2018
GEO591: Spatial applications of data mining and intro to UAV thermal imagery	Spring 2018
GEO591: UAV-based field methods in archeology	Spring 2018
GEO591: UAV and field sampling applications	Spring 2018
GGY499: Honors work in Geography (human-environment interactions modeling)	Spring 2018
GEO 591: UAS applications for conservation easement monitoring	Fall 2019
GGY 499: Honors thesis in GGY	Fall 2019

Fall 2019
Fall 2019
Spring 2020

# **PROFESSIONAL MEMBERSHIPS**

American Association of Geographers (AAG) American Association for the Advancement of Science (AAAS) American Geophysical Union (AGU) American Society for Photogrammetry and Remote Sensing (ASPRS) Association for Women Geoscientists (AWG) International Association for Landscape Ecology (US-IALE) National Resources Defense Council (NRDC) Gamma Theta Upsilon Honor Society SigmaXi Women in Aviation International (WAI)