

Duke

NICHOLAS SCHOOL  
*of the* ENVIRONMENT

Graduation  
2025

PROFESSIONAL STUDENT  
*Recognition Ceremony*

*FRIDAY, MAY 9 • 2025*

WILSON RECREATION CENTER  
DUKE UNIVERSITY



Graduation  
**2025**

## PROCESSIONAL

### WELCOME

#### **LORI SNYDER BENNEAR, Ph.D.**

Stanback Dean, Nicholas School  
of the Environment

### INTRODUCTION *of* CLASS SPEAKER

#### **DEAN BENNEAR, Ph.D.**

### CLASS SPEAKER

#### **SYDNEY WILLIAMS, MEM '25 (EE/EAM)**

### INTRODUCTION *of* GUEST SPEAKER

#### **DEAN BENNEAR, Ph.D.**

### GUEST SPEAKER

#### **LUCAS NEAL JOPPA, Ph.D., ECOLOGY '09**

Senior Managing Director & Chief  
Sustainability Officer, Haveli Investments

### RECOGNITION *of* DEGREE CANDIDATES

Master of Environmental Management  
Master of Forestry  
International Master of Environmental Policy

## PRESENTATION *of* AWARDS

Lynn Maguire Award for Excellence  
in Teaching and Mentoring of  
Professional Students

#### **TIMOTHY L. JOHNSON, Ph.D.**

Professor of the Practice of Energy  
and the Environment and Senior  
Associate Dean for Academics

The Karen Kirchof Staff Award for  
Excellence in Mentoring Students

#### **TIMOTHY L. JOHNSON, Ph.D.**

Forever Duke Student Leadership Award

#### **GRANT MURRAY, Ph.D.**

Associate Professor of Marine Policy and  
Associate Dean for Professional Programs

Virlis L. Fischer Award for  
Academic Achievement

#### **GRANT MURRAY, Ph.D.**

## CLOSING REMARKS

#### **DEAN BENNEAR, Ph.D.**

## RECESSIONAL

Immediately following the ceremony, all graduates and their guests are cordially invited to a light reception outside of Wilson Recreation Center.

# MASTER OF ENVIRONMENTAL MANAGEMENT (MEM)

**MORGAN SIERRA ALEXANDER**, EE/BE + MPP

Scoping Ethanol vs. Electrification for Decarbonizing Brazil's Urban Mobility: Pathways to Cleaner Air and Reduced Emissions

**ERIN KATHLEEN ANSBRO**, CAMS/EAM  
Experimental Evaluation of Direct Air Capture CO<sub>2</sub> for Marine Microalgae Cultivation

**ALLISON RILEY APLIN**, CAMS/EEP  
Using Qualitative Comparative Analysis to Examine Linkages Between Stakeholder Involvement and Ecological Outcomes in Caribbean MPAs

**KENDALL AMES BARTON**, EAM/CAMS  
Comparing Vessel Traffic Data for Marine Spatial Planning in the US Central Atlantic

**JOEL RICHARD BEAUDRY**, EEP/CAMS  
Economic Impact of Environmental Non-Profits: Analysis of the North Carolina Coastal Federation's Restoration Programming Since 2009

**EMMA KATHERINE BEYER**, CAMS/EAM  
Characterizing the Extent of Harassment and Illegal Feeding of Bottlenose Dolphins (*Tursiops truncatus*) in Icacos and Palominos Cays, Fajardo, Puerto Rico

**YUNTIAN BI**, MEM + MF (FALL 2024)  
Long-Term Soil Carbon and Nitrogen Analysis at the Calhoun LTSE from 1962 to 2017

**DESA KERRY BOLGER**, CAMS/EAM  
Pea Crabs and Barnacles: Egg Hatching, Peptide Pheromones, and Endoproteinases

**FIONA BLEU**, CEEJ/EE  
Assessing the Feasibility of Microgrid and Battery Storage Systems for Critical Facilities in Barbados

**MARY PEYTON BROWN**, EEP + JD  
Evaluation of Environmental Education for Coastal Faith Communities

**YIWEN CAI**, BE/TFE  
Continued Monitoring of an Urban Museum Campus to Inform Long-Term Watershed Management

**CAROLINE HOPE CAMERON**, TFE/CEEJ  
Continued Monitoring of an Urban Museum Campus to Inform Long-Term Watershed Management

**CANDELA CERPA**, TFE/EAM + MCRP  
Land Conservation as an Opportunity for Flood Mitigation and Economic Development: A Case Study in Spruce Pine, North Carolina

**IRENE HAEJIN CHANG**, BE + MBA  
From Pledges to Progress: Implementing Company-Wide Sustainability Initiatives in the CPG Sector

**ZHIYI CHEN**, CEEJ/TFE  
Assessing Resource Needs and Network Dynamics: A Comprehensive Analysis of DEEP Collaborative's Community Partners in Durham and the Triangle

**EMMA CHILDS**, MEM + MF (FALL 2024)  
Supporting Female and Non-Binary Forest Landowners in North Carolina: Is There a Role for Forest Cooperatives?

**ANDREANA SUN HUI CHOU**, EE/EAM  
A Climate Change Adaptation Index for Financial Risk Assessment

**ADAM JAMES COWIE-HASKELL**, EE/EEP  
Large Computational Load Growth: A Literature Review and First-order Assessment of Load Characteristics and its Impacts on Emissions, Costs, and Decarbonization on CAISO

**ANNA CATHERINE CULLEN**, EEH/EEP  
PFAS Multimedia Human Exposure Assessment in the Private Well Community Outside Fayetteville, NC

**WYNONA EURJ MENDOZA CURAMING**, EAM/EE  
A Carbon Footprint Analysis of Travel

**GABRIELLA CZARNIAK**, EAM/TFE  
Informing Brazilian Public Healthcare Preparedness for Potential Risks Posed by Mine Tailings Dam Failures

**TULLIS DAVIS**, EEP/TFE  
Strengthening Sovereignty and Resilience: Generating Land Management Tools for the Lumbee Tribe Cultural Center in North Carolina

**ISABELA DELGADO SANTA MARÍA**, BE/TFE  
Waste Management System Analysis at Heavenly Resort, CA

**XIZHI DENG**, EAM/EE  
A Climate Change Adaptation Index for Financial Risk Assessment

**JUSTIN BENJAMIN DEPUE**, EEP + MBA  
Commercialization of Alternative Soil Amendments for Agricultural Use as a Nature Based Solution

**BARRETT FRANCES DOLLAR**, TFE/EEP  
A Climate Change Adaptation Index for Financial Risk Assessment

**ANDREW DOMINGUEZ**, EEP/CAMS  
Understanding the Gender Dimension of Climate Change Vulnerability in Small-Scale Fisheries

**YUFAN DU**, BE/EE  
A Deep Dive into Industrial Gas Project in the Voluntary Carbon Market

**BROOKE LYNN ELZWEIG**, CAMS/BE  
Unlocking Innovative Financial Pathways for Large-Scale Coastal Restoration

**SCHUYLER FICA-GOETZEL**, MEM + MF  
Master of Forestry Capstone

**ALLY MARIE FINKBEINER**, EEP/TFE  
Continued Monitoring of an Urban Museum Campus to Inform Long-Term Watershed Management

**STEVEN RASCOE FLY JR.**, EE + MBA  
Commercializing University Energy Innovation – A Case Study of OptiGen

**MORGAN FOSTER**, BE/EE  
The Market Use Case for Solar + Storage Serving as a Mid-Merit Asset

**JIE GAO**, EE/BE

Life Cycle Carbon Footprint Assessment of Solar Photovoltaic Systems in US and China

**BRYAN DONALDO GRAYBILL-TORRES**, ESC + MBA

Distribution of Natural Capital Financing in Markets

**MALCOLM KERN GREGORY**, EE + MPP

Estimating Carbon Intensity Using Text-Based Indicators: A Machine Learning Approach for Endowment Managers and Private Investment Portfolios

**MAIA HEATH GRIFFITH**, CAMS/EAM

Quantifying Shark Behavior using Unoccupied Aircraft Systems (UAS) and a Modified Application of a Deep Learning Pose Estimation Framework

**SHUBHANGI GUPTA**, EE/EAM

Capacity Accreditation Reforms in US Wholesale Electricity Markets and Implications for Battery Storage Assets

**JORDAN A. HABER**, ESC + MCRP

Unlocking the Conservation Potential of Managed Timberlands Through Understanding Avian Community Dynamics

**CHRISTIAN TAYLOR HACHTMAN**, CAMS/EEP

Toward a Bioeconomic Theory of Price-Based Regulation in Recreational Fisheries under Federalism

**MARLA HARVEY**, EE + MBA

Calvert Impact's Cut Carbon Note: Accelerating Building Decarbonization Through Green Bonds

**TZU-HSUAN (ROSALIND) HU**, EE/EAM

Evaluating the Benefits: Environmental Impacts of Repurposing Oil and Gas Infrastructure for Enhanced Geothermal Electricity Generation Systems

**YUECHEN HUANG**, TFE/EAM

Balancing Renewable Energy Development and Biodiversity Conservation: An Interdisciplinary Multi-Criteria Decision-Making Approach for Wind Power Siting in China

**JIWON HYUN**, BE + MBA

Carbon Capture and Storage in the United States: An Integrated Analysis of Policy, Permitting, and Market Viability

**MARIA ALEJANDRA JARAMILLO GUTIERREZ**, BE + MBA

Beating the Heat: Public Financing for Greener, More Resilient, and Healthier School Communities in Texas

**HAYLEY KAPLAN**, CAMS/CEEJ

Assessing Equity in the U.S. Shellfish Aquaculture Industry

**EMMA RACHEL KAUFMAN**, EAM/TFE

Floating Solar Photovoltaics: Potential and Opportunities in the Southeastern U.S.

**FIONA ELIZABETH KELLEY**, CAMS/EAM

Carbon Dioxide Capture & Conversion of Brewery Waste Stream for Microalgae (*Nannochloropsis oceanica*) Cultivation

**AYOUNG KIM**, EE/EAM

Evaluating the Benefits: Environmental Impacts of Repurposing Oil and Gas Infrastructure for Enhanced Geothermal Electricity Generation Systems

**CAROLINE SIRENA KRISTOF**, EEP/EE

Global Expansion of LevelTen Energy's Clean Energy Transaction Infrastructure Platform

**CARA PATRICIA KUUSKVERE**, EE/EAM

Evaluating the Benefits: Environmental Impacts of Repurposing Oil and Gas Infrastructure for Enhanced Geothermal Electricity Generation Systems

**SAMANTHA LAM**, CEEJ/EE

Assessing Resource Needs and Network Dynamics: A Comprehensive Analysis of DEEP Collaborative's Community Partners in Durham and the Triangle

**MICHAEL KENNA LANDIS**, CAMS/CEEJ

Can Co-Occurring Secondary Foundation Species Increase Restoration Success?

**ANRAN LI**, BE/EE

Decarbonization of Industrial Sectors: Aluminum and Steel

**LI LI**, EE/EAM

Assessing the Feasibility of Microgrid and Battery Storage Systems for Critical Facilities in Barbados

**DAVID MOHACSY LIDDLE**, CAMS/EAM

Coral Restoration Initiative – Advancing Conservation Through Data-Driven Strategies

**KRISTINE ANNE LISTER**, TFE/EEP

A Global Review of Marine Protected Area Financial Sustainability

**CHENJIA LIU**, EE/EAM

Decarbonization of Industrial Sectors: Aluminum and Steel

**XIRAN LIU**, CAMS/EAM

Science Communication of Coastal Parks Conservation Value Index (CVI)

**MARGARET GRACE MANNING**, CAMS/EAM

From Risk to Resilience: Planning for Sea Level Rise Using High-Resolution Inundation Forecasts

**ROCHELLE MARTIN**, BE/EE

A Carbon Footprint Analysis of Travel

**KATHLEEN BRIDE MAXWELL**, EEP/EE

WOTUS Over Time: An Examination of Potential Impacts on Wetlands/Streams over Different Definitions of Waters of the United States (WOTUS)

**JUSTIN MAYNARD**, EAM/EE

Capacity Accreditation Reforms in US Wholesale Electricity Markets and Implications for Battery Storage Assets

**JENNIFER LEIGH MCNEILL**, TFE/EAM

Leveraging Data Analytics to Identify Subsurface Leaks in Jackson, Mississippi's Recovering Water Distribution System

**MELISSA ANN MERRITT**, MEM + MF (FALL 2024)

Forests, Wildfires, and their Link with Weather and Landscape Variation: A Spatial and Temporal Analysis within Zambian GMAs

**VANSHIKA MITTAL**, EE/EAM

Decarbonization of Industrial Sectors: Aluminum and Steel

**MATTHEW FITZPATRICK MORRIS**, ESC + MBA  
Economic Impact of Environmental Non-Profits: Analysis of the North Carolina Coastal Federation's Restoration Programming Since 2009

**SOPHIE HAYES MOYER**, EAM/CAMS  
Mapping Small-Scale Fisheries: Using Remote Sensing Technology to Develop a Fisheries Footprint in the US Caribbean

**JORDAN ALEXIS MULLENS**, BE + MBA  
Commercialization of Alternative Soil Amendments for Agricultural Use as a Nature Based Solution

**BRIAN MULU MUTUA**, EE/EAM  
The Market Use Case for Solar + Storage Serving as a Mid-Merit Asset

**MARISSA ALBA NACLERIO**, CAMS/CEEJ  
Rain Garden Co-Stewardship in Mérida, México: A Case for Community Engagement in Rain Garden Maintenance

**HIRANMAYI NATARAJ**, EE/BE  
Global Expansion of LevelTen Energy's Clean Energy Transaction Infrastructure Platform

**ERIC NEWTON**, TFE/EAM  
A Climate Change Adaptation Index for Financial Risk Assessment

**LAUREN NG**, BE/EE  
Assessing the Feasibility of Microgrid and Battery Storage Systems for Critical Facilities in Barbados

**CHELSEA MARIE NIELSEN**, EEP + JD  
Navigating the Future of Nuclear Energy: Strategic Analysis and Market Opportunities

**ELLEN OLIVIA NIRENBLATT**, TFE/EAM  
Assessing Environmental Drivers of Mammal and Bird Visitations in the Northeastern Peruvian Amazon

**NUSRAT NOOR**, CAMS/EAM  
Exploratory Cross-Scale Characterization of Oceanographic Data Surrounding Offshore Wind Areas

**ELIZABETH ERIN OLSON**, BE/EE  
Safeguarding Summer Memories: Evaluating Energy Efficiency Retrofits for Slumber Falls Camp

**EMILY HELENA ORDOÑEZ**, EEP/EEH  
Regenerative Agriculture Peer-to-Peer Learning Platform: Supporting Growers in De-Risking Their Transition to Regenerative Practices

**SAMANTHA ELISE PACE**, EAM/TFE + MCRP  
Keep Durham Cool: Development and Evaluation of a Potential Heat Action Plan for Extreme Heat in Durham County

**CLAIRE E.C. PAJKA**, TFE/EAM  
Data Decisions & Disproportionality: The Implications of Analyst Choice on Quantitative Environmental Justice Analyses

**SAMANTHA LYNN PASCIULLO BOYCHUCK**, TFE/EEP  
A Carbon Footprint Analysis of Travel

**AISHWARYA SHEKHAR PATANKAR**, EE/BE  
Capacity Accreditation Reforms in US Wholesale Electricity Markets and Implications for Battery Storage Assets

**RACHEL MADELINE PIKE**, BE + MCRP  
Navigating Rising Waters: Chronic Flooding and Migration Intentions in Eastern North Carolina

**LOUISA PITNEY**, CAMS/EEP  
Assessing Equity in the U.S. Shellfish Aquaculture Industry

**NOAH D. PRICE**, BE + MBA  
Assessing the Feasibility of Microgrid and Battery Storage Systems for Critical Facilities in Barbados

**JAZMINE MICHELLE PRITCHETT**, EAM/EEH + MCRP  
Toxic Legacies: How Housing, Climate, and Redlining Influence Lead Exposure in Durham, North Carolina

**GRACE D'ANGELI RANDALL**, CAMS/EAM  
Examination of the Relinquishment Process in Deep-Sea Mining: Impacts on Conservation and Potential Improvements

**ALEJANDRA RIOS**, CAMS/EAM  
Risk and Resilience of Pivers Island

**ZACHARY SCOTT ROBERTS**, EE/EEP  
Floating Solar Photovoltaics: Potential and Opportunities in the Southeastern U.S.

**JACKSON WILLIAM RONALD**, EEP/EE  
WOTUS Over Time: An Examination of Potential Impacts on Wetlands/Streams over Different Definitions of Waters of the United States (WOTUS)

**JOHN KENNETH ROONEY**, EEP + MBA  
Calvert Impact's Cut Carbon Note: Accelerating Building Decarbonization through Green Bonds

**BROOKE ROSE**, CEEJ/TFE  
The Role of Forest-Based Carbon Offsetting in Climate and Community Resilience: Multidisciplinary, Participatory Research with Indigenous Communities in Oaxaca, Mexico

**BRYNN ASHELY ROTBART**, CEEJ/TFE  
Understanding the Gender Dimension of Climate Change Vulnerability in Small-Scale Fisheries

**PABLO SALAZAR ARMELLA**, EE/BE  
The Market Use Case for Solar + Storage Serving as a Mid-Merit Asset

**ELI WALKER SCHULMAN**, EE + MBA  
Carbon Capture and Storage in the United States: An Integrated Analysis of Policy, Permitting, and Market Viability

**UMMAMAH SHAH**, EE/BE  
Navigating the Future of Nuclear Energy: Strategic Analysis and Market Opportunities

**AUDREY ELLE SHANG**, EE/EEP  
Cultivating Change: Developing a Regenerative Agriculture Playbook for TechnoServe

**EMILY SIEGEL**, TFE/EEP  
Best Practices for Ethical Drone Flights: An Analysis of Orphaned African Elephant Behavioral Responses to Drone Techniques

**NICHOLAS SOROKIN**, EE + MBA  
The PJM Capacity Market: A Tale of Missing Money

**KEQIN SU**, EE/BE  
A Deep Dive into Industrial Gas Project in the Voluntary Carbon Market

**BRIANA KIRSTEN SUMPTER**, EEP/CAMS  
Incentive Structures for Community  
Participation in Managed Retreat Policies:  
A Norfolk Case Study

**SARAH JEAN SUSSMAN**, TFE/EEP  
Identification of Priority Conservation  
Lands Within Watersheds that Feed  
Drinking Water Supply Reservoirs in  
North Texas

**KATELYN OLIVIA TACK**, CAMS/EAM  
Toward a Global Estimate of Cetacean  
Bycatch: Data Gaps and Future Needs

**KIRSTEN ELIZABETH SUSAN TAYLOR**,  
EEP + MCRP  
Strengthening Sovereignty and Resilience:  
Generating Land Management Tools for  
the Lumbee Tribe Cultural Center in  
North Carolina

**PRISHA TIWARI**, EE/BE  
Capacity Accreditation Reforms in  
US Wholesale Electricity Markets and  
Implications for Battery Storage Assets

**KAI LOC TRAN**, CEEJ/TFE  
Indigenous People's Engagement with  
Forest-Based Carbon Offsetting:  
Challenges, Benefits, Strategies and  
Mitigating Circumstances

**SAMANTHA ELIZABETH TRUEMAN**,  
MEM + MF (FALL 2024)  
Master of Forestry Capstone

**ELIZABETH TUCKER**, EE + MBA  
Accelerating Solar for All Financing for  
Multifamily Affordable Housing in North  
Carolina

**TANYA VALDEZ RIVAS**, CAMS/EAM  
Analyzing the Temporal Patterns  
Associated with the Installation of  
Monopile Turbines thru Pile-Driving at  
Vineyard Wind 1, Massachusetts

**KEANU GENE CRISTOBAL VALIBIA**, EE/  
EAM + MPP  
Stronger by Design: Post-Hurricane  
Building Code Reforms and Implications  
for Western North Carolina

**SOPHIA HANNAH MARIA  
VALKENBERG**, CEEJ/EEH  
Regenerative Agriculture Peer-to-Peer  
Learning Platform: Supporting Growers  
in De-Risking Their Transition to  
Regenerative Practices

**RUIMENG WANG**, EEP/CAMS  
Waste Management System Analysis at  
Heavenly Resort, CA

**SHUYI WANG**, EE/EAM  
The Market Use Case for Solar + Storage  
Serving as a Mid-Merit Asset

**CHRISTOPHER CARGILL WATT**, CAMS/  
EEP  
The Sea is My Bank: Vanuatu Small-Scale  
Fisheries and Human Wellbeing

**PRITHVEERAJ BALASAHEB WAVRE**, EE/  
BE  
Navigating the Future of Nuclear Energy:  
Strategic Analysis and Market Opportunities

**RACHEL ELIZABETH WEAVER**, TFE/EEP  
Tracing the Evolution of Terms and  
Concepts in Environmental Peacebuilding:  
A Critical Analysis

**ZIYA WEI**, TFE/EAM  
Understanding the Gender Dimension of  
Climate Change Vulnerability in Small-  
Scale Fisheries

**XINYI WEN**, EE + EGR  
Estimating the Energy and Emissions  
Impacts of a Commuter Rail System in  
North Carolina

**VINCIENT JAMES WHATLEY JR.**, EE/  
EAM  
Safeguarding Summer Memories:  
Evaluating Energy Efficiency Retrofits for  
Slumber Falls Camp (SFC)

**JACK HUGH WHISLER**, CAMS/EAM  
River Otter Use of Coastal and Marine  
Ecosystems in Carteret County, North  
Carolina

**SAMANTHA PAOLA WHITE MURILLO**,  
CEEJ/TFE  
Identification of Priority Conservation  
Lands Within Watersheds that Feed  
Drinking Water Supply Reservoirs in  
North Texas

**SYDNEY WILLIAMS**, EE/EAM  
Assessing the Feasibility of Microgrid  
and Battery Storage Systems for Critical  
Facilities in Barbados

**MATTHEW DONALD WOFFORD**, EE +  
MBA  
Impact Investing in the Energy Industry

**MADISON R. WURST**, CAMS/EEP  
Whole Genome Scan of Regional Genetic  
Variation in the Common Bottlenose  
Dolphin (*Tursiops spp.*)

**WENTAO XUE**, CAMS/CEEJ  
Study of Public Perception of Seaweed  
Aquaculture in Maine

**JIJUN YU**, BE/EE + MBA  
Achieving Net Zero in the Cement  
Industry

**ZHUOWEN YU**, EEH/BE  
Life Cycle Assessment of Moutai Classic:  
Carbon Footprint of a Chinese Sorghum-  
Based Liquor

**ELIZABETH ZAJACZKOWSKI**, CAMS/CEEJ  
Spatial Analysis of Alaska Subsistence  
Harvest Areas to Inform Aquaculture  
Development

**ANISAH ZARIF**, EE/BE  
A Carbon Footprint Analysis of Travel

**HANZHENG ZHANG**, CAMS/CEEJ  
Sharks in a Changing Sea: Documenting  
SCUBA Diver Marine Knowledge on Sand  
Tiger Shark (*Carcharias taurus*) Population  
and Ecology in North Carolina

**ZHENLING ZHANG**, BE/EE  
Cultivating Change: Developing a  
Regenerative Agriculture Playbook for  
TechnoServe

**SHIQI ZHENG**, TFE/EAM  
Determinants of Geographic Patterns  
in Seed Dispersal Modes in Continental  
U.S. Plant Communities

**XINYI ZHOU**, EAM/EE  
Climate Change Effects on the Significant  
Tornadoes in the United States

**DMYTRO ZLENKO**, EEP + MBA  
Leveraging Market-Driven Environmental  
Protection

**MICHAEL AARON ZORGER**, BE + MBA  
Operationalizing Emissions Reduction  
and GHG Accounting Requirements:  
Tools and Technical Assistance for North  
Carolina Businesses

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# DUKE ENVIRONMENTAL LEADERSHIP, MASTER OF ENVIRONMENTAL MANAGEMENT (DEL-MEM)

## **WILLIAM SCOTT ADDIS**

Stitching Resilience: Ethical Fashion as a Response to Wicked Problems in Disaster Recovery

## **TESS MARGARET BENJAMIN**

National Wildlife Refuge Boundary Expansion: A Case Study for the Expansion of Paint Rock River National Wildlife Refuge

## **SHANNON BENNETT**

Where the Rubber Meets the Road: Orange Bike Brewing Marathon to B Corp Certification

## **NICOLE HONORE BENOIT**

The Power (Energy) of Water: A Model for Energy Extraction from Piped Water Flow

## **HOLLY JEAN BISBEE**

The Intersection of Environmental Compliance and National Security

## **REBECCA ELLIOTT**

Christian Social Movements for Action on Climate Change

## **ELEANOR LEIBFRIED HARRIGAN**

Integrating GIS and Multi-Criteria Decision Analysis for Conservation Modeling in the Southern Appalachians

## **SARAH KASSIS IZZAT**

Traditional Indigenous Knowledge for Sustainable Post-Disaster Management: A Two-Eyed (Parallel) Planning Toolkit

## **PERRI WEINBERG KRAMER**

Nourishing Communities: A Holistic Approach to Food as Medicine Interventions

## **BRITTENY LEE SCHALK**

Unpacking Sustainability: A Comparative Analysis of Policy and Regulations for Sustainable Packaging Across North America and the European Union

## **ANA TABUENA-RUDDY**

Can We Create Mission-Driven Enterprises that Last? Scaling the Impact of Worker Cooperatives in Environment and Technology for Regeneration, Shared Prosperity, and Resilience

## **LESLIE VEGAS**

Economic Impact of Environmental Non-Profits: Analysis of the North Carolina Coastal Federation's Restoration Programming Since 2009

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# MASTER OF FORESTRY (MF)

*The Master of Forestry degree is accredited by the Society of American Foresters (SAF).*

## **YUNTIAN BI, MEM + MF (FALL 2024)**

Long-Term Soil Carbon and Nitrogen Analysis at the Calhoun LTSE from 1962 to 2017

## **EMMA CHILDS, MEM + MF (FALL 2024)**

Supporting Female and Non-Binary Forest Landowners in North Carolina: Is There a Role for Forest Cooperatives?

## **FELIZIA DVORAK**

Master of Forestry Capstone

## **SCHUYLER FICA-GOETZEL, MEM + MF**

Master of Forestry Capstone

## **BROOK SIERRA HEMPHILL**

Master of Forestry Capstone

## **SADIE ELYSSE HORNER**

Master of Forestry Capstone

## **MELISSA ANN MERRITT,**

MEM + MF (FALL 2024)

Forests, Wildfires, and their Link with Weather and Landscape Variation: A Spatial and Temporal Analysis within Zambian GMAs

## **CATHERINE ROSE**

Master of Forestry Capstone

## **JIANNA TORRE**

The Impact of Elevated Atmospheric CO<sub>2</sub> on Self-thinning and Management of Loblolly Pine

## **SAMANTHA ELIZABETH TRUEMAN,**

MEM + MF (FALL 2024)

Master of Forestry Capstone



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# INTERNATIONAL MASTER OF ENVIRONMENTAL POLICY (IMEP)

*The iMEP program, offered at Duke Kunshan University, is a collaboration between the Nicholas School of the Environment and the Sanford School of Public Policy.*

## **JIFAN CUI**

The Quality Assessment of Carbon Disclosure in China Bank Industry

## **NAN GAO**

The Quality Assessment of Carbon Disclosure in China Bank Industry

## **ZIXUAN KANG**

Evaluating the Quality of Climate Information Disclosure in Chinese Listed Companies

## **ROSHAN LU MUNIR KHAN**

The Effect of China's Expanded Ecological Red Lines on Global Soy and Maize Production, Trade, and Shifting Land Use

## **JIAQI LIU**

Environmental Discourse in Chinese Government Weibo Accounts

## **KAIDI LIU**

Coupled Social, Natural, and Economic Systems: Advancing the Renewable Energy Crossover by 13 Years

## **YINAN LU**

Global Circular Economy Status of Retired Traction Lithium-ion Batteries: Market, Policy, and Technological Gaps and Causes

## **FELIX CONSTANTIN LEONARD MERGENHAGEN**

Modeling and Analysis of Least-Cost Electrification Using a Custom Python Tool and Monte Carlo Simulations

## **HUAICHENG MO**

Nonlinear Effects of Urbanization on PM<sub>2.5</sub> Pollution: Evidence from City-Level Panel Data in China

## **XINGE MU**

Promoting the Establishment and Development of Other Effective area-based Conservation Measures (OECMs) in China

## **JIAER PAN**

Measuring the Effectiveness of China's Mangrove Nature Reserves (MNRs)

## **MINGZHANG PAN**

Low Carbon Transformation of Kunshan Industries and Policy Promotion: 1985-2020

## **YUHAN PENG**

Promoting the Establishment and Development of Other Effective Area-based Conservation Measures (OECMs) in China

## **LEYI QIAN**

Environmental Discourse in Chinese Government Weibo Accounts

## **WEIJIA RAN**

Exploring the Factors of Transition after Coal Mine Closure on S Village, X Village, and H Village in L city, Hunan: A Multi-Case Comparative Study

## **STEVEN ROBERT RHEIN**

The Relationship Between Political Ideology and Mixed Waste Production of Households in the United States

## **MARGARET ALICE SHOOP**

Economic Optimization Framework for CCUS at Power Plants in the United States

## **QIJIA TANG**

Exploring the Factors of Transition after Coal Mine Closure on S Village, X Village, and H Village in L City, Hunan: A Multi-Case Comparative Study

## **DILIN WANG**

The Quality Assessment of Carbon Disclosure in China Bank Industry

## **JIANGZHOU WANG**

The Migration Response to Rising Temperature in China

## **SHUHAN WANG**

Bridging the Gap: Exploring the Landscape Effects of Plantation Forestry on Biodiversity Conservation

## **YENCHING WANG**

Low Carbon Transformation of Kunshan Industries and Policy Promotion: 1985-2020

## **ZHENGLONG XIAO**

Global EV Transition Strategies: Diverging Institutional Pathways in the U.S., EU, and China

## **XIAOCI YAN**

Promoting the Establishment and Development of Other Effective area-based Conservation Measures (OECMs) in China

## **JINJIN YANG**

Global Circular Economy Status of Retired Traction Lithium-ion Batteries: Market, Policy, and Technological Gaps and Causes

## **JINQUAN YE**

Evaluating the Quality of Climate Information Disclosure in Chinese Listed Companies

## **BOLIN ZHANG**

Low Carbon Transformation of Kunshan Industries and Policy Promotion: 1985-2020

## **ZUOCHENG ZHANG**

Firm Carbon Emission, Market Premium, and Transition Risks in China: A Revisit of the Value and Values-based Investment

## **XUJIA ZHONG**

Global Circular Economy Status of Retired Traction Lithium-ion Batteries: Market, Policy, and Technological Gaps and Causes

## **YIXUAN ZHOU JR.**

The Quality Assessment of Carbon Disclosure in China Bank Industry

---

# CERTIFICATES

## Geospatial Analysis Certificate

**ERIN KATHLEEN ANSBRO**, CAMS/EAM  
**ALLISON RILEY APLIN**, CAMS/EEP  
**KENDALL AMES BARTON**, EAM/CAMS  
**EMMA KATHERINE BEYER**, CAMS/EAM  
**YUNTIAN BI**, MEM + MF (FALL 2024)  
**DESA KERRY BOLGER**, CAMS/EAM  
**FIONA BLEU**, CEEJ/EE  
**EMMA CHILDS**, MEM + MF (FALL 2024)  
**ALLY MARIE FINKBEINER**, EEP/TFE  
**BRYAN DONALDO GRAYBILL-TORRES**,  
ESC + MBA  
**MAIA HEATH GRIFFITH**, CAMS/EAM  
**JORDAN A. HABER**, ESC + MCRP  
**SADIE ELYSSE HORNER**, MF  
**YUECHEN HUANG**, TFE/EAM  
**EMMA RACHEL KAUFMAN**, EAM/TFE  
**FIONA ELIZABETH KELLEY**, CAMS/EAM  
**DAVID MOHACSY LIDDLE**, CAMS/EAM  
**XIRAN LIU**, CAMS/EAM  
**MARGARET GRACE MANNING**, CAMS/EAM  
**JENNIFER LEIGH MCNEILL**, TFE/EAM  
**MELISSA ANN MERRITT**, MEM + MF (FALL 2024)  
**SOPHIE HAYES MOYER**, EAM/CAMS  
**ELLEN OLIVIA NIRENBLATT**, TFE/EAM  
**NUSRAT NOOR**, CAMS/EAM  
**CLAIRE E.C. PAJKA**, TFE/EAM  
**SAMANTHA LYNN PASCIULLO BOYCHUCK**, TFE/EEP  
**ALEJANDRA RIOS**, CAMS/EAM  
**SARAH JEAN SUSSMAN**, TFE/EEP  
**KATELYN OLIVIA TACK**, CAMS/EAM  
**JIANNA TORRE**, MF  
**TANYA VALDEZ RIVAS**, CAMS/EAM  
**MADISON R. WURST**, CAMS/EEP  
**ELIZABETH ZAJACZKOWSKI**, CAMS/CEEJ  
**SHIQI ZHENG**, TFE/EAM

## Community-Based Environmental Management Certificate

**SCHUYLER FICA-GOETZEL**, MEM + MF  
**MARIA ALEJANDRA JARAMILLO GUTIERREZ**, BE + MBA  
**MATTHEW FITZPATRICK MORRIS**, ESC + MBA  
**KIRSTEN ELIZABETH SUSAN TAYLOR**, EEP + MCRP  
**SAMANTHA ELIZABETH TRUEMAN**, MEM + MF (FALL 2024)

## Climate Change Science and Applications Certificate

**CAROLINE HOPE CAMERON**, TFE/CEEJ  
**CHELSEA MARIE NIELSEN**, EEP + JD  
**RACHEL MADELINE PIKE**, BE + MCRP  
**XINYI ZHOU**, EAM/EE

## International Development Policy Certificate

*(Administered by the Sanford School of Public Policy)*

**BRIAN MULU MUTUA**, EE/EAM  
**BROOKE ROSE**, CEEJ/TFE  
**BRYNN ASHELY ROTBART**, CEEJ/TFE  
**RACHEL ELIZABETH WEAVER**, TFE/EEP

## Innovation and Entrepreneurship Certificate

*(Administered by the Graduate School)*

**TZU-HSUAN (ROSALIND) HU**, EE/EAM  
**LI LI**, EE/EAM

# LEGEND

## MASTER OF ENVIRONMENTAL MANAGEMENT (MEM) DEGREE CONCENTRATIONS

Ecosystem Science and Conservation (ESC)

### Environment Concentrations

Coastal and Marine Systems (CAMS)

Ecotoxicology and Environmental Health (EEH)

Energy and Environment (EE)

Terrestrial and Freshwater Environments (TFE)

### Management Concentrations

Business and Environment (BE)

Community Engagement and Environmental Justice (CEEJ)

Environmental Analytics and Modeling (EAM)

Environmental Economics and Policy (EEP)

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## MASTER OF FORESTRY (MF)

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### DUAL DEGREES

Juris Doctor (JD)

Master of Business Administration (MBA)

Master of City and Regional Planning (MCRP)

Master of Engineering (EGR)

Master of Public Policy (MPP)



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