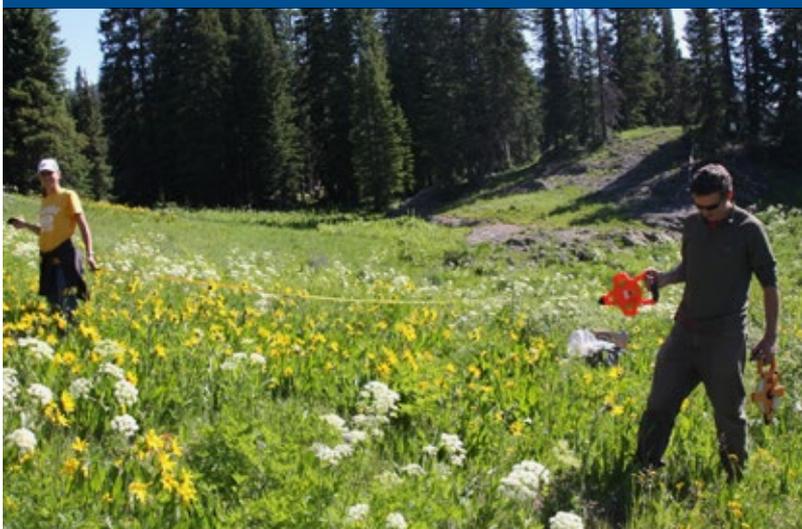




EMORY

L A N E Y  
GRADUATE  
S C H O O L

Master's in  
Environmental Sciences



Professor Berry Brosi in the field at Rocky Mountain Biological Laboratory (Crested Butte, Colorado)

Natural Sciences

## Master's in Environmental Sciences

The Master's in Environmental Sciences at Emory

University integrates ecological and earth sciences with policy and social sciences in a two-year program with a strong emphasis on quantitative research and practice.

Benefiting from a growing program with ready access to faculty, students will participate in interdisciplinary research aimed at understanding and resolving complex environmental issues facing humanity in the 21st century.

The Master's in Environmental Sciences (ENVS) graduate program is designed to train the next generation of professionals to effectively address a suite of complex environmental issues, with a goal of understanding and resolving interactions between humans and the environment. Interdisciplinary in its design and quantitative in its approach, the master's program will equip graduates with the necessary conceptual and quantitative skills to conduct applied research in environmental sciences, critically evaluate scholarly work, and communicate scientific findings to policy makers.

### Students

Students in the graduate program in environmental sciences have undergraduate academic backgrounds across a wide range of disciplines. Students may come from undergraduate programs in the natural or social sciences, with foundational coursework in statistical analysis.

Graduates from the master's program in ENVS will be prepared to work in a variety of settings upon completion of the program and will graduate with an in-depth understanding of the complexities of scientific understanding and training that will enable them to relate scientific findings to policy decisions.

### Professional Development

Laney offers a range of programs that encourages students to develop their professional skills, engage with broader professional communities, and prepare for their careers.

Visit [gs.emory.edu](http://gs.emory.edu) to learn more.

**Prospective employers for graduates include:**

- Governmental: Environmental Protection Agency, State Department (USAID), Department of the Interior
- Inter-Governmental: World Bank, United Nations (UNEP, WHO)
- Non-Governmental: The Nature Conservancy, World Wildlife, Conservation International, Wilderness Society, Wildlife Conservations Society, Bill and Melinda Gates Foundation
- Areas of natural resource management, biodiversity and species conservation, environmental management and conservation, environmental and health

**The Curriculum**

This master's program integrates coursework and research. A total of 36 semester hours is required for graduation; 27 hours of coursework and 9 hours of thesis research. Normally the two-year program will consist of five semesters, including one summer semester devoted to research. The submission and defense of a master's thesis is required.

The curriculum is designed to develop quantitative skills and provide research practice for graduates. Students will work closely with faculty to develop research plans that incorporate relevant sciences and will spend a summer engaged in intensive research.

The curriculum for the Master of Science in Environmental Sciences comprises the following coursework:

**Required courses**

18 credit hours from the following disciplines:

- Quantitative skills and Integrative methods
- Environmental, Ecological, and Earth Sciences
- Environmental policy and management
- Integration of science and policy

**Elective courses:**

9 credit hours

**Thesis:**

9 credit hours

**Facilities and Resources**

ENVS and affiliated researchers are leading a range of studies that provide students with research opportunities in the Atlanta area and around Georgia, across the U.S. and globally in Central and South America, Africa and Southeast Asia. Faculty research projects in Georgia, Colorado and Florida, and in Brazil, Mexico and Peru, and Kenya, Tanzania and Madagascar, and in Bhutan and Nepal include studies of disease ecology and environmental risk, environmental change and conservation, science and policy of climate change, resource ecology and management. On the cutting edge of digital scholarship, ENVS students have access to the Geospatial/Visualization computer lab and a variety of geographic and geospatial resources, and expertise in geographic information systems (GIS). Students will benefit from an extensive interdisciplinary research collection within the Emory Libraries, ranked among the top 25 academic research libraries in North America. The Environmental Sciences librarian, Kristan Majors, a trained ecologist and librarian, supports ENVS students and faculty in their research endeavors.

**The Faculty**

ENVS and other faculty involved in the program conduct research on a wide range of topics, from conservation and disease ecology to urban ecology, environmental policy and management. Departmental research projects are currently funded by grants through the National Science Foundation, National Institutes of Health, Centers for Disease Control and Prevention, USAID, US Department Agriculture and private philanthropic organizations. Our graduate students work closely with faculty in the classroom and in developing a research focus.

**BERRY BROSI**

*Assistant Professor, Environmental Sciences*

Professor Brosi works to understand the causes and implications of bee declines through topics such as the effects of land-use change on bee communities, the impacts of bee species losses on plant pollination in diverse natural communities, the conservation and landscape genetics of bee, and understanding and managing disease threats in bees. In addition, Dr. Brosi actively publishes on environmental policy, particularly in terms of biodiversity conservation. His research is funded by the National Science Foundation, the US Department of



Stream monitoring as part of research in disease ecology (Atlanta, Georgia).

Agriculture, and others. Dr. Brosi's research has been published in ecology, conservation, and environmental law and policy journals. One of his 2010 articles has won two national-level awards and a 2012 publication in *Science* received wide media coverage.

**SHAUNNA DONAHER**

*Lecturer, Environmental Sciences*

Dr. Donaher studies the atmospheric boundary layer through in-situ and remote sensing observation techniques. She maintains the Emory weather station, and is also involved in science education research to improve student learning in undergraduate science classrooms.

**THOMAS GILLESPIE**

*Associate Professor, Environmental Sciences*

Professor Gillespie focuses on interactions among anthropogenic environmental change, biodiversity and ecology, and emergence of pathogens among people, wildlife, and domestic animals. Dr. Gillespie's research has resulted in more than 50 peer-reviewed publications in leading conservation and global health journals. He serves on advisory boards of major conservation and health foundations and has given over 50 invited addresses in over ten countries at leading institutions including the Pasteur Institute and the Max Planck Institute and organizations as divergent as the US Department of Defense and the United Nations Commission on Development, demonstrating the potential of research integrating health and conservation.

**LANCE GUNDERSON**

*Professor, Environmental Sciences*

Professor Gunderson studies the human and institutional dimensions of resource ecology. He works to understand how ecosystem processes and structures interact across space and time scales and how scientific understanding influences resource policy and management. His work has resulted in four books and numerous research articles. Dr. Gunderson has also been appointed a Fellow of the Beijer Institute for Ecological Economics, Swedish Royal Academy of Sciences, and is the Co-Editor in Chief of the highly ranked journal, *Ecology and Society*.

**URIEL KITRON**

*Chair and Goodrich C. White Professor of Environmental Studies  
Director of Graduate Studies*

Professor Kitron conducts research centered on the eco-epidemiology of tropical and emerging infectious diseases and environmental risk factors, emphasizing anthropogenic changes, including issues of climate, urbanization, agricultural practices and conservation. Dr. Kitron's research has been funded by the National Institute of Health, National Science Foundation, Centers for Disease Control and Prevention and USAID, resulting in large-scale collaborative international studies in Kenya, Ethiopia, Argentina, Brazil, Peru and Australia, as well as studies in the U.S. in Atlanta and Chicago, in addition to larger regional studies. He has co-authored over fifty refereed publications since arriving at Emory in 2008.

**ANTHONY MARTIN**

*Professor of Practice, Environmental Sciences*

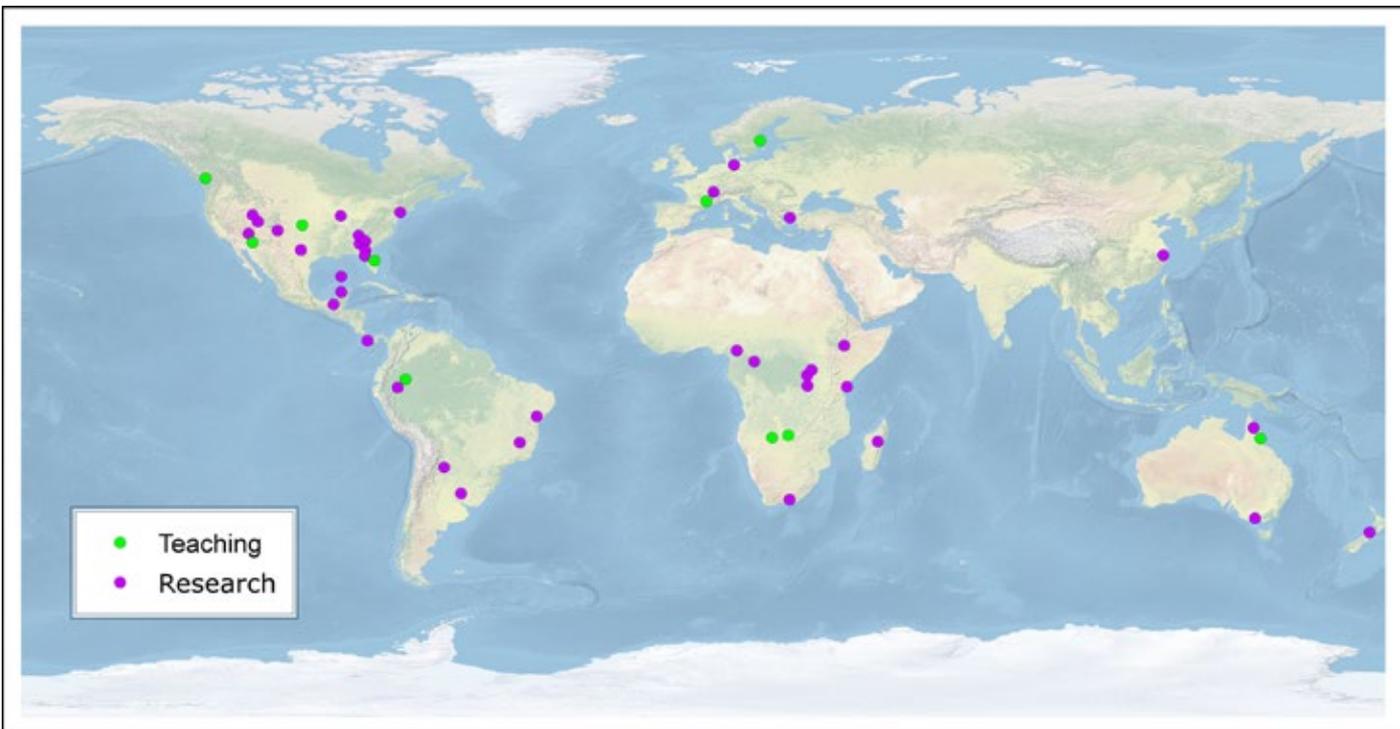
Professor Martin focuses on ichnology, the study of plant and animal traces in both modern and ancient environments, seeking to understand how modern and ancient plants and animals interacted with their environments. Dr. Martin has published five books, and numerous articles in journals addressing disciplines as varied as paleontology, paleoecology, geology, coastal ecology, and behavioral ecology.

**MICHAEL PAGE**

*Lecturer, Environmental Sciences*

*Geographer, Emory Center for Digital Scholarship*

Focus on human and urban geography, Geographic Information Systems (GIS), environmental sustainability, location analytics, virtual 3-D city modeling, cartography and remote sensing.



**MICHAEL RICH**

*Professor, Political Science & Environmental Sciences  
Director, Emory Center for Community Partnerships*

Professor Rich specializes in public policy, federalism, and urban politics and policy. His current research projects include welfare reform, particularly concerning issues related to collaboration across sectors (public, private, nonprofit) at the local level and issues related to accessibility of low income households to job opportunities; and an assessment of community building and neighborhood revitalization strategies. Courses taught include Data Analysis, Public Policy, Public Policy Analysis, Urban Politics, Urban Public Policy, and Federalism.

**ERI SAIKAWA**

*Assistant Professor, Environmental Sciences*

Professor Saikawa conducts research focused on the science and policy of air pollution and climate change. She uses different types of models to understand the emissions and the chemical compositions of the atmosphere/biosphere as well as to analyze the policy processes related to these problems. Dr. Saikawa has published in diverse areas including atmospheric chemistry, energy, and political science. She is also involved in a community earth system model development at the National Center for Atmospheric Research (NCAR) and brings a state-of-the-art global modeling capability to Emory.

**BILL SIZE**

*Professor, Environmental Sciences*

Professor Size is engaged in long-term international collaborative research on the origin and development of continental crust along convergent boundaries, funded in part by a Senior Research Fulbright Award to Norway. Dr. Size, a professional registered geologist, has worked with engineering firms and mining and construction companies on identification of potentially hazardous areas and the analysis of the health effects from mining and quarrying minerals such as asbestos and silica. Dr. Size has also consulted with many museums on the identification of ancient artifacts, resulting in collaboration on two books.

**GONAZALO VAZQUEZ-PROKOPEC**

*Assistant Professor, Environmental Sciences*

Professor Vazquez-Prokopec focuses on research at the interface between ecology, statistics, and public health, and aims to understand the major determinants in the occurrence, transmission and local propagation of major vector-borne and parasitic diseases, particularly in the urban environment. In addition to his linkages with EH and GHI, he has a guest researcher appointment with the CDC Entomology branch. His research has resulted in over 30 publications in journals of public health, tropical disease, entomology, and geography.

**TRACY YANDLE**

*Associate Professor, Environmental Sciences*

Professor Yandle uses fisheries management in the U.S. and New Zealand to understand how policy interventions in property rights and governance arrangements change individuals' incentives, interactions with natural resource management institutions, and thus their behavior. Her research appears in journals focused on fisheries management, policy analysis, public administration, and environmental management. She is appointed to the scientific advisory group of the South Atlantic Fisheries Management Council.

**Contact Information**

For additional information, please visit our website at [www.envs.emory.edu](http://www.envs.emory.edu). Application and financial aid information is available through the James T. Laney Graduate School website at [www.gs.emory.edu](http://www.gs.emory.edu). Administrative questions about the program may be directed to the Graduate Academic Program Coordinator, Leah Thomas, at [leah.thomas@emory.edu](mailto:leah.thomas@emory.edu).

**Laney Graduate School Degree Programs**

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 Biochemistry, Cell and Developmental Biology  
 Cancer Biology  
 Genetics and Molecular Biology  
 Immunology and Molecular Pathogenesis  
 Microbiology and Molecular Genetics  
 Molecular and Systems Pharmacology  
 Neuroscience  
 Population Biology, Ecology, and Evolution  
 Biomedical Engineering  
 Biostatistics  
 Business  
 Chemistry  
 Clinical Psychology  
 Cognition and Development (Psychology)  
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 Computer Science and Informatics  
 Development Practice  
 Economics  
 English  
 Environmental Health Sciences  
 Environmental Sciences  
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 Islamic Civilizations Studies  
 Mathematics  
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 Physics  
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 Religion  
 Sociology  
 Women's, Gender, and Sexuality Studies

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 Atlanta, GA 30322

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