The Earth Institute Center for Environmental Sustainability
Executive Education Program
Spring Semester 2018 Course Descriptions

SPRING BREAK
March

Coral Reef Ecology: Bermuda*#

Instructor: Kaitlin Baird

Fulfills requirement: Case Study (CS) **OR** Tools (T)
Dates: March 14 – 18th
Location: Bermuda Institute of Ocean Sciences
Course number: ENVB 0321 N

*Field course, not available via distance learning
#Additional program fees apply; students are responsible for airfare and transportation to and from BIOS

Course Description

The ocean can be your classroom! Join The Earth Institute Center for Environmental Sustainability (EICES) and the Bermuda Institute of Ocean Sciences (BIOS) for an exploration of the northernmost tropical coral reef in the world. Combining lectures, labs, and fieldwork, the course serves as an introduction to coral reef ecosystems. In this course you will:

- Learn the basics of coral biology
- Learn about coral reef biodiversity
- Learn about the drivers of coral reef decline and degradation
- Learn about conservation efforts to protect and preserve coral reef ecosystems
- SNORKEL!!!

Early registration discount ($50 off program fee) deadline: **January 17th**
Final application deadline: **February 16th**
Open to both Columbia and non-Columbia University students

For more information, see http://eices.columbia.edu/education-training/coral-reef-ecology/

About the Instructor

Kaitlin Baird currently directs science curriculum development, programming, and workshops for Ocean Academy programs at the Bermuda Institute of Ocean Sciences (BIOS). Kaitlin oversees the building and maintenance of relationships with schools, professional associations and non-profit organizations locally and internationally. She is actively involved in course and curriculum development for current and new international visiting groups and is currently the Bermuda Regional Coordinator in cooperation with the Marine Advanced Technology and Education Centre. Kaitlin received her Master's in Conservation Biology in 2008 from Columbia University, where she remains on certificate faculty. Kaitlin holds a BSc (Honors) in Marine Biology from Roger Williams University). She is graduate of the Duke Environmental Leadership Program and is currently enrolled in the Informal Education Certificate Program at Oregon State University.

MODULE 1

January to February

Environmental Entrepreneurship

Instructor: Brian Kateman

Fulfills requirement: Case Study (CS) **OR** Tools (T)
Day: Tuesday
Dates: Jan. 16, 23, 30, Feb. 6, 13 (Module 1, 5 sessions)
Time: 6:10 – 8:10 PM
Course number: ENVB 0421 N

Course Description

New course!

Entrepreneurial activity is a major source of innovation around the world. In this hands-on course you will learn how to create societal impact through environmental entrepreneurship. Environmental entrepreneurship describes the discovery and sustainable exploitation of opportunities to create social change that positively transforms the environment. You will be introduced to environmental entrepreneurial entities as well as several case studies of environmental entrepreneurship (e.g., Grist, TerraCycle, Memphis Meats) and guided through the process of establishing and promoting a for-profit or non-profit venture to address an environment issue. You will develop an entrepreneurial mindset and hone the skills you need either to develop a new enterprise with potential for growth and funding or to identify and pursue opportunities for growth within an existing organization. Rather than just learning theory or describing what to do, the focus will be on guiding you through the process of actually establishing a venture. Throughout the course, you will learn how to develop an idea for a new venture (e.g., a product, service, technology, organization, or campaign) that addresses an environmental challenge and how to lay the foundation to launch it. In addition to fundamentals of new venture financing and infrastructure, special attention will be placed on developing your relationship building, fundraising, marketing, public relations, and communications skills.

About the Instructor

Brian Kateman is cofounder and president of the Reducetarian Foundation, a non- profit organization dedicated to reducing animal product consumption in order to create a healthy, sustainable, and compassionate world. Brian is the editor of *The Reducetarian Solution: How the Surprisingly Simple Act of Reducing the Amount of Meat in Your Diet Can Transform Your* Health and the Planet (Penguin Random House, April 18, 2017) and the forthcoming *The Reducetarian Cookbook* (Hachette Book Group, Fall 2018). A TEDx speaker and leading expert on entrepreneurship and communications, he has appeared in dozens of media outlets including The Washington Post, Vox, National Geographic, The Atlantic, Forbes, Fast Company, Salon, Fox News, NPR and The Guardian.

Sustainable Investing

Instructor: Thomas Murtha

Fulfills requirement: Environmental, Policy, Management, and Finance (EPMF) **OR** Tools (T)
Day: Wednesday
Dates: Jan. 17, 24, 31, Feb. 7, 14 (Module 1, 5 sessions)
Time: 6:10 – 8:10 PM
Course number: ENVB 0422 N

Course Description

New course!

This brief introduction to sustainable investing focuses on addressing environmental and conservation problems. The course develops a more inclusive investment narrative than the old story of business as usual. In contrast, we frame sustainable investing as an approach focusing on the preservation of natural capital and resource development for an enduring and desirable future. Topics covered include risk and return as stewardship metrics, addressing global inequities and environmental justice, and the evolution of sustainable investing as a positive methodology that is outcome-focused, risk-adjusted, opportunity-oriented, and can provide superior returns. Case studies used to illustrate concepts may include the pros and cons of fossil fuel divestment, active engagement of public companies on environmental issues, forest carbon investment in New England, identifying green infrastructure investments, evaluating the returns and impacts of sustainable mutual fund offerings, among others. Participants will apply approaches and tools developed in class to create a sustainable investment portfolio.

About the Instructor

Thomas Murtha has over thirty-five years' experience as a journalist, investment banker, institutional investment manager, director of corporate engagement at The Nature Conservancy (TNC), and as an environmental/investment activist working on issues related to the systemic and transition risk of climate change. At Preventable Surprises, he works with institutional investors and other non-governmental organizations to engage publicly traded companies in North American, Europe and Asia on the adoption of 2°C transition plans in accordance with the science-based targets of the UN COP21 Agreement. While at TNC, he worked with Royal Dutch Shell on approaches to replacing grey with green living infrastructure for improved coastal resilience and landscape scale mitigation of oil and gas

development as well as scenario planning for climate change adaptation and pathways to net zero emissions. Also at TNC, Thomas worked with BHP Billiton to develop the Martu Living Deserts Project in Australia, the Valdivian Coastal Reserve in Southern Chile, and the Sustainable Rivers and Forest Initiative in Texas. At T. Rowe Price Associates in Baltimore, he was a portfolio manager for the International Stock Fund and the Global Technology Fund. Earlier in his career, Thomas was an investment banker in Asia for Jardine Fleming, a joint venture of Hong Kong-based conglomerate Jardine Matheson and London-based bank Robert Fleming. Prior to his career in finance, Tom was journalist for McGraw Hill Publications and Dun and Bradstreet where he covered technology and finance beats in Asia. Tom is an occasional contributor of op-ed articles to Institutional Investor, Pensions and Investments, Greenbiz.com, and the Huffington Post.

Introduction to Evolution

Instructor: Dr. Sergios-Orestis Kolokotronis

Fulfills requirement: Fundamental (F)
Day: Thursday
Dates: Jan. 18, 25, Feb. 1, 8, 15 (Module 1, 5 sessions)
Time: 6:10 – 8:10 PM
Course Number: ENVB 0450 N

Course Description

Are Darwin's findings still relevant today? How could he have come up with the idea of evolution through natural selection if he did not know about DNA or how heredity works? And how did heredity work, again…? Now that we have decoded the human genome, what do we know – and still don't – about life? This course will lead students on a broad exploration of evolutionary science, seeking to answer questions such as these, among many others. We will review the history of evolutionary thought and science, genetics and heredity, the main mechanisms by which evolution acts, and the tools and findings of evolutionary research, including the evolution of humans and microbial pathogens.

About the Instructor

Dr. Sergios-Orestis Kolokotronis is an Assistant Professor of Epidemiology at the School of Public Health at SUNY Downstate Medical Center located in Brooklyn. He maintains secondary affiliations at the American Museum of Natural History, New York University, and the New York Botanical Garden. His research group focuses on molecular evolution of biological diversity by employing modern tools drawn from genomics and bioinformatics to investigate the tempo and mode of evolution leading to adaptation of organisms to their environment. Having worked on endangered species, his interests are now focused on the application of evolutionary thinking to questions in public health, such as infectious diseases and pathogen vectors, as well as polluted environments and their microbial communities. He has coauthored numerous scientific publications that can be accessed at http://kolokolab.org. He received his PhD, MPhil, and MA in Ecology and Evolutionary Biology from Columbia University and was a postdoctoral fellow at the American Museum of Natural History's Sackler Institute for Comparative Genomics.

MODULE 2
February to March

Introduction to Ecology
Instructor: Dr. Jenna Lawrence

Fulfills requirement: Fundamental (F)
Day: Tuesday
Dates: Feb. 20, 27, March 6, 20, 27 (Module 2, 5 sessions)
Time: 6:10 – 8:10 PM
Course number: ENVB 0301 N

Course Description
This course examines the interaction between the living components of the earth with the environment, including the distribution and abundance of plants and animals and the impact of human activities on these distributions. Key ecological principles are illustrated with applied examples of how changes in the environment affect ecological systems, ultimately providing you with the tools to evaluate environmental issues.

About the Instructor
Dr. Jenna Lawrence received her PhD from the department of Ecology, Evolution and Environmental Biology (E3B) at Columbia University. Her research focuses on primate behavioral ecology and her current lectures and interests extend to all biodiversity in both marine and terrestrial ecosystems. At Columbia University, she also teaches sustainability management at the graduate level and a Summer Ecosystem Experiences for Undergraduates (SEE-U) program in Jordan offered by The Earth Institute Center for Environmental Sustainability (EICES).

Biodiversity and Mass Extinction: Understanding the Biosphere, Safe Planetary Boundaries, and Human Well-Being
Instructor: Dr. Shahid Naeem

Fulfills requirement: Environmental Policy, Management, and Finance (EPMF)
Day: Wednesday
Dates: Feb. 21, 28, March 7, 21, 28 (Module 2, 5 sessions)
Time: 6:10 – 8:10 PM
Course number: ENVB 0423 N

Course Description
New course!
In this course, we will explore the scientific principles underlying the origin of life, the fundamental units of life, from cells to species to biomes, and the biosphere. We will review the methods and tools

for quantifying biodiversity and understanding origination, extinction, and assessing mass extinction. We will use this information to consider the safe planetary boundaries of Earth and the fate of humanity and life itself in the next century.

About the Instructor

Dr. Shahid Naeem is the Director of The Earth Institute Center for Environmental Sustainability (EICES). He oversees the development of research science programs that benefit from the combined resources of the Consortium for Environmental Research and Conservation. Naeem studies the ecological and environmental consequences of biodiversity loss. He is interested in how changes in the distribution and abundance of plants, animals, and microorganisms affect ecosystem functions and, by extension, how ecosystem services are affected. He is actively involved in bringing the science of biodiversity and ecosystem function to conservation, restoration, and policy development. He is author, co-author and editor of over 100 scientific publications and co-chaired the UN Millennium Assessment's Biodiversity Synthesis Report published in 2005. Naeem is also a professor of ecology in Columbia University's Department of Evolution, Ecology and Environmental Biology (E3B). He received his PhD from the University of California, Berkeley; was a postdoctoral fellow at Imperial College of London, the University of Copenhagen and the University of Michigan; and served on the faculties of the University of Washington and the University of Minnesota before coming to Columbia in 2003.

Sustainability of Local Food Systems^

Instructor: Jeff Potent

^Sustainable Food Systems Track course

Fulfills requirement: Food Economics and Sustainability (FES) **OR** Environmental Policy, Management, and Finance (EPMF)
Day: Thursday
Dates: Feb. 22, March 1, 8, 22, 29 (Module 2, 5 sessions)
Time: 6:10 – 8:10 PM
Course number: ENVB 0545 N

Course Description

The locavore movement is alive and well in New York, its environs, and across the nation. Green markets, community supported agriculture (CSAs), farm-to-table restaurants, and established retailers and restaurants now offer a dizzying array of locally-produced meats, libations, veggies, cheeses, breads, and other value-added products. Foodies, environmentalists, farmers, and economic development professionals are all singing the praises of this revolution in the way many of us buy our food and what we choose to eat.

In this course, we will explore this exciting and hopeful trend with a focus on how it is contributing to the sustainable development of our region. We will address this topic from three key perspectives:

1. The land — How is the local food movement serving to keep productive land in agriculture and farmed in a manner that restores and protects soil health, water and air quality, and helps to mitigate and adapt to climate change?

2. The nutritional value of the food — Is locally-produced food more accessible and nutritious than other alternatives?

3. The economy — Does local agriculture provide economic opportunities and stability for farmers, distributors, processors, retailers, and restaurateurs?
From this exploration, we will gain perspective on how this phenomenon must evolve to best serve people, planet and profit so that it will continue to expand as a critical element of an emerging sustainable economy and society.

About the Instructor

Jeff Potent develops and teaches courses in corporate sustainable development, systems theory, ecosystem services, and sustainable agriculture. He also consults and speaks publicly on corporate and agricultural sustainability and water quality. Mr. Potent formerly led corporate partnerships for the US Environmental Protection Agency (EPA), Office of Water in Washington DC, advancing sustainable and market-based approaches to environmental protection. Earlier in his career, he served as EPA/US Department of Agriculture (USDA) liaison, facilitating collaboration among Land Grant Universities, EPA, USDA, and other agencies and academic institutions. In 2001, he established the regional component of the USDA National Integrated Water Quality Program, serving as regional coordinator and member of the program's national leadership team. Before that, he led an energy and environmental engineering consulting practice, managed pollution prevention programs for a large environmental agency, and planned satellite and cable infrastructure for a global telecommunications corporation.

MODULE 3
April to May

Food Systems: Certifications, Labels, and Measures of Sustainability^

Instructor: Dr. Amanda Caudill

^Sustainable Food Systems Track course

Fulfills requirement: Food Systems (FS) **OR** Case Study (CS)
Day: Tuesday
Dates: April 3, 10, 17, 24, May 1 (Module 3, 5 sessions)
Time: 6:10 – 8:10 PM
Course number: ENVB 0424 N

Course Description

New course!

As our human population is steadily increasing, we are faced with the question of how to successfully grow a sufficient amount of food without destroying our environment and natural resources. Agriculture is often thought of a natural land use, but it is not necessarily environmentally-friendly or sustainable. In fact, agriculture is associated with a number of environmental issues such as destruction of habitat, pollution and degradation of natural resources due to pesticides and agrochemical use, and production of greenhouse gases. In addition to environmental implications, food systems have impacts to farmer and worker livelihoods and well-being.

There is a wide range of farming methods and systems—each with their own level of impacts. How do we know which ones are more sustainable? Food labels and certifications attempt to provide guidance for consumers as to which products are sustainable - but each has their own standards and measure of sustainability. Do these labels mean anything or are they just a marketing ploy? How is sustainability measured in food systems? In this course, we will explore the myriad of food labels and certifications such as Organic, Fair Trade, Rainforest Alliance, All Natural, Local-grown, GMO-free, and Free Range. We will seek to understand what is meant by "sustainable" and investigate the metrics used to measured sustainability. We will take a critical look at our food system to understand the challenges and nuances in defining and measuring sustainability and discuss what role, we as consumers, can play.

About the Instructor

Dr. Amanda Caudill is a coffee research scientist and an alumnus of Columbia University and the The Earth Institute Center for Environmental Sustainability (EICES) Executive Education program. She recently completed a postdoctoral fellowship with the Smithsonian Conservation Biology Institute. She has worked with coffee sustainability from seed to cup and has lived and worked in the coffee-growing regions of India, Costa Rica, and Mexico. She is interested in sustainable agriculture as a means to provide wildlife habitat, foster ecosystem services, and conserve biodiversity while simultaneously providing for human livelihoods. She is the owner and creator of Blue Leaf Travels – Curated Coffee and Culture Tours. Blue Leaf provides weeklong eco-tours in Costa Rica that are a balanced mix of coffee farms, monkey-filled rainforests, cultural activities, and some rest and relaxation on the beach (www.blueleaftravels.com).

Introduction to Environmental Policy

Instructor: Bipasha Chatterjee

Fulfills requirement: Fundamental (F)
Day: Wednesday
Dates: April 4, 11, 18, 25, May 2 (Module 3, 5 sessions)
Time: 6:10 – 8:10 PM
Course number: ENVB 0351 N

Course Description

The past two decades have seen an increasing amount of attention given to the importance of environmental policy and planning in promoting a sustainable future for the planet. This course examines contemporary domestic and international issues that require environmental policy and planning solutions. It explores policy responses to local and global environmental problems such as biodiversity loss, air and water pollution, and climate change. The course examines how governments of industrial and developing countries, non-governmental organizations, the scientific community, and the private sector shape environmental policy through a wide range of economic, social, and political factors. Topics cover the history, evolution and the application of existing environmental policies in the world, US environmental regulation, international environmental treaties including Kyoto Protocol, new clean energy policies, and incentives for the private sector for promoting sustainable technologies.

About the Instructor

Bipasha Chatterjee is an environmental economist and a policy consultant with post-graduate degrees from the University of Cambridge, UK and from the London School of Economics, UK. EICES Ex Ed Fall 2017 Course Descriptions p. 7 of 9 She started her career with the Food and Agriculture Organization of the United Nations in Rome, Italy and went on to work as a governance reform consultant (KPMG and AEA GROUP) in the UK. She has extensive experience in working on environmental and climate change policy issues. She has led projects in the areas of climate change mitigation action, Kyoto Protocol and clean development mechanism (CDM), renewable energy-related research, and advisory work. She is currently an Executive Education Instructor for the Earth Institute Center for Environmental Sustainability teaching courses on Environmental Policy and Agricultural Economics. She also teaches BA and MA Environmental Economic courses at Hunter College, City University of New York & Roosevelt House Public Policy Institute.

Environmental Justice and Sustainability: Is Environmental Sustainability Possible Without Environmental Justice?

Instructor: Tomás Garduño

Fulfills requirement: Case Study (CS) **OR** Tools (T)
Day: Thursday
Dates: April 5, 12, 19, 26, May 3 (Module 3, 5 sessions)
Time: 6:30 – 8:30 PM
Course number: ENVB 0300 N

Course Description

This course will explore the question, “Is environmental sustainability possible without environmental justice?” The focus will be on environmental racism in the USA and internationally, the relationship between race and the environment, and whether or not environmental sustainability can be achieved in a racially-biased society. Through case studies, the course will assess the current state of environmental sustainability and attempt to determine the causes of the current state of the environment. The course will also assess the current state of racial equality in these same locales. By

overlaying these two assessments we will attempt to determine whether there is a causal, corollary, or no relationship whatsoever between race and the environment. To be able to determine the relationship, the course will also explore two key concepts: environmental racism and externalization of cost.

About the Instructor

Tomás Garduño is a social justice organizer with over 15 years' experience in the social justice movement. Tomás played key roles in several significant moments of the social justice movement, including the anti-globalization protests against the World Trade Organization in Seattle in 1999, The People's Climate March, and many grassroots environmental and economic justice campaigns in Portland, OR, Albuquerque, New Mexico and Brooklyn, New York. He has worked for Western States Center, Community Alliance of Tenants, ROOTS! Reclaiming Our Origins Through Struggle, Southwest Network for Environmental and Economic Justice, the SouthWest Organizing Project (SWOP), and ALIGN: Alliance for a Greater New York. Tomás is currently coaching six social justice organizations around the country.

MODULE 4

May to June

Food Insecurity and Obesity: Why are They Common Bedfellows?^

Instructor: Dr. Sharon Akabas

^Sustainable Food Systems Track course

Fulfills requirement: Nutrition and Health/Hunger (NHH) **OR** Case Study (CS)
Day: Tuesday
Dates: May 8, 15, 22, 29, June 5 (Module 4, 5 sessions)
Time: 6:10 – 8:10 PM
Course number: ENVB 0425 N

Course Description

New course!

Food insecurity is defined at the federal level in the United States as "a household-level economic and social condition of limited or uncertain access to adequate food." In New York City, at least one in ten residents is food insecure (e.g., in Staten Island), and in some boroughs the rate is one in five (e.g., in Brooklyn). Coexisting nationally with these high rates of food insecurity are rising rates of overweight and obesity. This course will examine the common etiologic factors to the current rates of food insecurity and obesity. It will also examine how a food system that is more sustainable can also lead to a reduction in food insecurity and obesity, and lower carbon and water imprints of our food system.

About the Instructor

Dr. Sharon Akabas is the Director of the MS Program in Nutrition and Associate Director for Educational Initiatives at the Columbia University Medical Center Institute of Human Nutrition. Dr. Akabas' primary interests are in education of health professionals about the importance of nutrition as a modality in disease prevention and treatment. She works with professionals from almost all healthcare sectors to develop programs and curricula that focus on childhood obesity. These collaborations include organizing symposia for practicing health care professionals, working with community groups to develop obesity prevention programs, and working with a wide range of groups to identify, understand, and lessen bias towards overweight children and adults.

Renewable Energy and Deep Decarbonization

Instructor: Justin Gundlach and Romany Webb

Fulfills requirement: Environmental Policy, Management, and Finance (EPMF) OR Case Study (CS)
Day: Wednesday
Dates: May 9, 16, 23, 30, June 6 (Module 4, 5 sessions)
Time: 6:10 – 8:10 PM
Course number: ENVB 0426 N

Course Description

New course!

In the Paris Climate Agreement, the international community agreed to limit global warming to less than 2 degrees Celsius, requiring global net greenhouse gas emissions to approach zero by the second half of this century. For industrialized countries, this implies an 80% reduction in emissions below 1990 levels by 2050, necessitating a fundamental transformation of their economies, in a process known as "deep decarbonization." This course will explore the implications of deep decarbonization for the energy sector. We will discuss the need to phase out fossil fuels, as well as the benefits and drawbacks of possible replacements. Particular attention will be given to the role of renewable energy, with a discussion of available and emerging technologies, and the conditions (financial, regulatory, etc.) required to maximize their use. Case studies will be used to illustrate the difficulties associated with achieving optimal conditions and participants will have the opportunity to brainstorm possible solutions. While the primary focus will be on the U.S., there will be some discussion of international topics.

About the Instructors

Justin Gundlach is a Climate Law Fellow at the Columbia University Sabin Center for Climate Change Law. Justin's work at the Sabin Center focuses on using existing legal and regulatory tools to promote efforts on the part of governments and private actors to adapt to a changing climate and to mitigate the effects of climate change. Before starting at the Center, Justin worked as a staff attorney and clinical teaching fellow with the environmental section of Georgetown law school's Institute for Public Representation. That fellowship followed several years of private practice, which in turn followed an internship in the Energy & Climate Change Section of the White House Council on Environmental

Quality. Justin received an LL.M. from Georgetown with distinction in 2015 and a J.D., *cum laude*, from NYU School of Law in 2010. He is licensed to practice law in New York.

Romany Webb joined the Sabin Center for Climate Change Law in September 2016 as a Climate Law Fellow. Romany's work at the Sabin Center focuses on climate change mitigation. She researches domestic policies aimed at reducing greenhouse gas emissions and promoting carbon sequestration. Prior to joining the Sabin Center, Romany worked at the University of California Berkeley Energy and Climate Institute, researching executive authority to combat climate change. Romany also completed a fellowship with the Kay Bailey Hutchison Center for Energy, Law, and Business at the University of Texas at Austin, where she researched energy policy, with a focus on options for minimizing the climate and other environmental impacts of energy development. The fellowship followed several years working in private practice in Sydney, Australia. Romany received an LL.M., with a certificate of specialization in environmental law, from the University of California, Berkeley in 2013. She also holds an LL.B., awarded with first class honors, from the University of New South Wales (Australia).

Forest Management and Conservation: Black Rock Forest*

Instructor: Dr. Matt Palmer

*The two evening sessions will be offered via distance learning; however, students **MUST** attend the field session to be eligible to receive a passing grade

Fulfills requirement: Case Study (CS) **OR** Tools (T)
Day: Thursday evening and an all-day Saturday field session
Dates: May 10, 17 (Thursday evening sessions on Columbia University Morningside Campus)
Time: 6:10 – 8:10 PM
Field session: Saturday, May 12 from **9:00 AM – 4:30 PM** at Black Rock Forest)**
Course number: ENVB 0338 N

**EICES will provide transportation; students will need to bring a lunch

Course Description

Forests are a vitally important habitat for much of the world's terrestrial biodiversity. They are sources of goods, such as timber and food, and provide services, such as carbon storage and water filtration. However, forests worldwide are threatened by overexploitation, conversion, climate change, and invasive species. Learn key issues in forest ecology and management through the local environment of Black Rock Forest. Students will participate in an all-day field trip to Black Rock Forest to study how pathogens and other invasive species affect forest structure and function. Local observations are scaled up to consider how these issues affect forest conservation on a global scale.

About the Instructor

Dr. Matt Palmer is a faculty member in the department of Ecology, Evolution and Environmental Biology (E3B) at Columbia University. His research interests are based in plant community ecology, with emphases on conservation, restoration and ecosystem function. Dr. Palmer has done research on

the effects of microtopography and plant interactions on centimeter-scale diversity patterns in fens of the New Jersey Pinelands. He is currently conducting research on the community dynamics and ecosystem functions of urban forests and green roofs, the population biology of rare plants, and the effects of forest canopy disturbance on understory structure and function.