

Spring 2019 Lunch & Learn Schedule

January 17, 2019

12:00-1:00pm | Multi-purpose Room, [Curtis Hall](#)

Resilience and recovery among agroecological farmers in Puerto Rico after hurricane Maria

Nayla Bezares and Alyssa Melendez, Agriculture, Food & Environment Division, Tufts University

On September 20, 2017, Puerto Rico was hit by the strongest hurricane of the last hundred years. Hurricane María was an unprecedented climatological disaster, which decimated farms across Puerto Rico. This presentation will cover the results of a qualitative study which collected and assessed primary-source information about the effectiveness and reach of agricultural programs and policies to respond after a climatological disaster, build resilience among farmers, and enable them to return to markets in Puerto Rico. The study focused on the work of the Puerto Rican agroecological community and its role in influencing the resilience of the farmers involved in this movement.

[Nayla Bezares](#) studies Agriculture, Food and the Environment at Tufts Friedman School of Nutrition with a focus on sustainable food systems. Her motivation grows from exposure to food manufacturing, the supply chain and her experiences growing up in Puerto Rico where a dependence on food imports and an agricultural market hungry for development underlines the declining health of its citizens. Ms. Bezares is interested in opportunities of inclusive and participatory research that advance food systems work with the contributions of communities and their key stakeholders.



[Alyssa Melendez](#) is pursuing a M.S. in Agriculture, Food, and Environment at the Friedman School of Nutrition Science and Policy at Tufts University. Prior to graduate school, she spent a year in Hood River, Oregon working on food access and outreach programs in collaboration with community leaders, migrant workers, and farmers. From this experience she developed a passion for food sovereignty and ecological justice. Ms. Melendez's interests include agroecology and using community-based research and initiatives to achieve a more equitable and sustainable food system.



January 24, 2019

12:00-1:00pm | Multi-purpose Room, [Curtis Hall](#)

Strangers in the night: Has light pollution led to firefly declines?

Avalon Owens, Department of Biology, Tufts University

Why do fireflies flash? Because they want to be seen! But their unique bioluminescent courtship signals can be obscured by street lamps, house lights, and other sources of artificial light at night — and if we're not careful, our lights might extinguish theirs forever. Learn more about the total impact of light pollution on firefly reproduction, and methods whereby fireflies, moths, and other essential members of the nocturnal ecosystem can continue to coexist with humans on this increasingly urbanized planet.

Avalon Owens is a Ph.D. candidate in the Department of Biology at Tufts University, where she studies the impact of light pollution on North American fireflies. She obtained her B.A. in Organismic and Evolutionary Biology from Harvard University, and a Master's in Entomology from National Taiwan University. In her spare time, she hosts a bilingual educational YouTube channel called [INSECT|昆蟲島|ISLAND](#).



January 31, 2019

12:00-1:00pm | Multi-purpose Room, [Curtis Hall](#)

Designing biology for sustainability

Kit McDonnell, Manager of Capital Markets and Special Projects, Ginkgo Bioworks

As the original circular economy, biology is the most sophisticated form of sustainable technology on the planet. [Ginkgo Bioworks](#) is tapping into this inherent trait to create new modes of production, recycling, and remediation. From engineering plant probiotics for improved agricultural practices to resurrecting the fragrance of extinct flowers to building and breaking down plastics, Ginkgo is using biotech to improve the value chains of consumer markets.

[Kit McDonnell](#) (A16) operates at the intersection of design, tech, and sustainability. At Ginkgo Bioworks she specializes in futures-driven business development with consumer brands—how might we wear, eat, drive, and interact with new forms of biology—as well as corporate strategy, branding, and compelling organism design. As an advocate for a future that is grown, she’s spoken and led workshops on the subject of biodesign at Harvard University, MIT, the Japanese Business Federation Keidanren, Rhode Island School of Design, and Brown University, among other places, and exhibited at HUBweek in collaboration with the design agency Faber Futures.



At Tufts, Kit studied Biology, launched the Tufts Venture Lab, and founded TEDxTufts, among other ideation-minded initiatives. Between Tufts and the Field Museum of Natural History, she’s conducted research on myriad organisms. From Costa Rican ant metagenomics, cheese microbiomes, and malaria in Neotropical birds to pu-erh tea polyphenolics, hermit crab behavior, and Malawian mammal phylogenetics. She caught the biodesign bug while studying abroad at the University of Hong Kong and hasn’t looked back since.

February 7, 2019

12:00-1:00pm | Multi-purpose Room, [Curtis Hall](#)

From Aspiration to Action: How outreach and mobilization, and advocacy are keeping Massachusetts on track to meet its clean energy and climate objectives.

Eugenia Gibbons, Policy Director, Green Energy Consumers Alliance

In 2008, Massachusetts passed landmark clean energy and climate legislation. The Global Warming Solutions Act (GWSA) set binding GHG emission reduction targets for 2020 and 2050. The Green Communities Act (GCA) prioritized investments in efficiency and renewable energy resources. Together these laws set the stage for rapid reduction of greenhouse gas emissions in the state partly driven by growth of a robust clean energy sector. Goal-setting alone is not enough to ensure compliance with the law. Prodding, including a lawsuit taken all the way to the state's highest court, has been needed along the way. A decade later, we are approaching the first big milestone – the 2020 target. Will we make it? Discussion during this session includes a crash course in state energy policy & requirements, an overview of how Massachusetts is progressing towards its GWSA goals, and explores the role of advocacy (and the effective advocate) in getting all the way to the finish line.

[Eugenia Gibbons](#) is the Policy Director at Green Energy Consumers Alliance (formerly Mass Energy and People's Power & Light). First established in 1982 as the Boston Oil Consumers Alliance, Green Energy Consumers Alliance is a nonprofit consumer and environmental advocacy organization that works to enable people to make clean energy choices in the most cost-effective, practical, and seamless ways possible. The organization also advocates for policies that accelerate the Commonwealth's transition to a low-carbon economy in a manner that is expeditious and equitable. Green Energy Consumers Alliance was co-plaintiff in *Kain v. DEP*, the lawsuit that instigated very specific state action taken in recent years to get to the 2020 target. The

organization was also a lead advocate for increasing renewable energy requirements in Massachusetts and Rhode Island. Eugenia previously served as Program Director at the Environmental League of Massachusetts where she launched a multi-disciplinary effort to facilitate and maximize implementation of the Global Warming Solutions Act (GWSA). Gibbons is a graduate of Tufts Urban and Environmental Policy and Planning Program. She currently sits on the Board of the Applied Economics Clinic housed at Tufts and volunteers with Mothers Out Front.



February 14, 2019

12:00-1:00pm | Multi-purpose Room, [Curtis Hall](#)

Puffins: The new canary of climate change

Derrick Z. Jackson, Environmental Writing Fellow, Union of Concerned Scientists

Puffins, down to their last 2 or 4 birds in the state of Maine in the early 1900s, are now 1,300-pairs strong on several islands. They were restored on several islands by Project Puffin, the 45-year-old brainchild of a then-young Audubon bird instructor bird

[Derrick Z. Jackson](#) is an environmental writing fellow at the Union of Concerned Scientists (UCS), newspaper and magazine essayist and co-author and photographer of [Project Puffin: The Improbable Quest to Bring a Beloved Seabird Back to Egg Rock](#)

A Boston Globe columnist from 1988 to 2015, Jackson was a finalist for the Pulitzer Prize, a 10-time award winner from the National Association of Black Journalists, a 2-time commentary winner from the national Education Writers Association, and a commentary winner from the National Lesbian and Gay Journalists Association among many others.

Jackson is a native of Milwaukee, Wis., and is a 1976 graduate of the University of Wisconsin at Milwaukee. Jackson was a 1984 Nieman Fellow in Journalism at Harvard University and holds three honorary degrees, from the Massachusetts College of Liberal Arts, Salem State University and the Episcopal Divinity School. He was also given Curry College's Human Rights Award and the UW-Milwaukee Distinguished Alumni Community Service award for his volunteering for Scouting and Big Brothers.



February 28, 2019

12:00-1:00pm | Multi-purpose Room, [Curtis Hall](#)

Climate change and development: An analysis of global adaptation finance

Laura Kuhl, Assistant Professor, School of Public Policy and Urban Affairs and the International Affairs Program, Northeastern University

Through the United Nations Framework Convention on Climate Change and reaffirmed in the Paris Agreement, the world has committed to supporting developing countries in meeting their urgent adaptation priorities. Climate change presents a risk to development progress, and many of the advances in the past decade could be stalled or even reversed unless urgent action is taken to adapt. Global adaptation funding, however, is quite limited, and significant debates exist on appropriate criteria for funding. Approaches to adaptation can range from those that address specific climate impacts to those that address broader drivers of vulnerability. This talk looks at the funding criteria of global adaptation funds and the implications for the relationship between adaptation and development.

[Dr. Laura Kuhl](#) is assistant professor in the School of Public Policy and Urban Affairs and the International Affairs Program. Her research examines climate adaptation and resilience in developing countries. Prior to Northeastern, she completed a post-doctoral fellowship at the Center for International Environment and Resource Policy at the Tufts University Fletcher School, where she helped establish a new research partnership with the United Nation Development Program (UNDP) on climate policy in developing countries. She has studied innovation, technology transfer and adoption for adaptation as well as mainstreaming adaptation in development policy in East Africa and Central America. Current projects also address climate information and early warning systems, coastal resilience, adaptation finance, and national adaptation plans. She has conducted fieldwork in Ethiopia, Honduras, Colombia, Peru, Ecuador and New England and has collaborated with the Global Environment Facility (GEF), United States Agency for International Development (USAID) and UNDP. She has a PhD and MALD in international affairs from the Fletcher School, Tufts University, and a BA in environmental studies and anthropology from Middlebury College.



March 7, 2019

12:00-1:00pm | Room 745B, Dowling Hall

The transportation rEVolution: Electric vehicles and the changing nature of transportation

Ryan Katofsky, Vice President of Industry Analysis, Advanced Energy Economy

The future of transportation is electric; for many industry analysts it is not a question of "if" but "when". As battery technology improves, electric vehicles (EVs) are getting within reach of cost parity with internal combustion engine vehicles. Combined with superior performance, low operating and maintenance costs, the potential for deep emissions reductions, and other megatrends in transportation, EVs are poised to transform transportation. This presentation will review the state of the EV market, the underlying trends that are driving transportation electrification, and address opportunities and challenges with EV-grid integration.

Ryan Katofsky is Vice President of Industry Analysis at Advanced Energy Economy (AEE), a national business association working to make our energy system more secure, clean and affordable. He has spent his entire career focused on the advanced energy industry, including 20 years in consulting at Arthur D. Little, Navigant, and as an independent contractor. His work has included market and technology assessment, economic analysis, business strategy development, due diligence, lifecycle energy and environmental assessment, long-range energy planning, and analysis of public sector renewable energy programs. Ryan joined AEE in 2013, and currently oversees AEE's state regulatory work, which is focused on accelerating regulatory and business model change in the electric power sector. He is also on the Board of Directors of the Alliance for Clean Energy New York. Ryan received his Bachelor of Engineering degree from McGill University in 1990, where he received the British Association Medal for Great Distinction. He received his Master of Science in Engineering degree from Princeton University in 1993, where he was a Guggenheim Fellow.



March 14, 2019

12:00-1:00pm | Multi-purpose Room, [Curtis Hall](#)

Heather Clish, Director of Conservation & Recreation Policy, Appalachian Mountain Club

March 28, 2019

12:00-1:00pm | Multi-purpose Room, [Curtis Hall](#)

Environmental justice and indigenous land issues in Massachusetts

Pete Westover, co-founder, Conservation Works

This talk will focus on the current indigenous struggles for land in New England and eastern Canada, focusing on the Penobscot, Nipmuc, Mashpee Wampanoag, Chappaquiddick Wampanoag, and Cree. Pete Westover will discuss the work of groups like Conservation Law Foundation, Arise for Social Justice, and Climate Action Now in partnership with Environmental Justice communities on land, energy and climate issues.

[Pete Westover](#) founded Conservation Works with Terry Blunt in 2005. In addition to his work for [Conservation Works](#), he is a frequent adjunct professor of ecology at Hampshire College, a contractor for the Massachusetts Department of Agricultural Resources, and formerly long-time Conservation Director for the Town of Amherst. He serves on the Mass Board of the Conservation Law Foundation, the Hitchcock Center for the Environment, and the Whately Land Preservation. He is a co-founder of Valley Land Fund and the Massachusetts Society of Municipal Conservation Professionals, and was a long-time advisor to the Kestrel Land Trust. Mr. Westover has a B.S. from Oberlin College and M.S. from the Yale School of Forestry and Environmental Studies. He has taught forest management at Antioch Graduate School, is the author of *Managing Conservation Land*, and is co-editor of *Bird Finding Guide to Western Massachusetts* and the recent *Harvesting History*, a history of farming in Amherst. He is also a marathon runner and a recipient of numerous awards for conservation work in the Pioneer Valley.



April 4, 2019

12:00-1:00pm | Multi-purpose Room, [Curtis Hall](#)

Slavery at Sea: Bidirectional links between marine degradation and modern slavery

Jessica Sparks, Conservation Medicine Program, Tufts University

Human beings transferred between boats like cargo, unable to set foot on land for almost 10 years. Watching shipmates be quartered by boats. Being locked in cages. These are not relics nor historical fiction, but rather first-hand accounts from individuals enslaved on fishing vessels who are catching some of the most environmentally degrading seafood products commonly found on supermarket shelves. While modern slavery persists in the global fishing sector, little is understood about the nexus between marine degradation (e.g., overfishing) and the use of modern slavery. Dr. Sparks will discuss the evidence supporting these bidirectional linkages and implications for eliminating modern slavery (and its environmental impacts) in the fishing sector—including a spectrum of actions from creating interconnected international policies and enforcement strategies to changing seafood consumers' behaviors.

[Dr. Sparks](#) is a core faculty member (and 2014 alumna) of the Master in Conservation Medicine program at the Cummings School of Veterinary Medicine at Tufts University; a research associate with the Antislavery Ecosystem project at the Rights Lab, a University of Nottingham Beacon of Excellence; and a senior fellow with the Environmental Leadership Program, New England Regional Network. Jess is a trained social scientist, interested in the human dimensions of conservation medicine, particularly in marine ecosystems. Her research employs both quantitative and qualitative methods to describe and quantify the bidirectional links between overfishing-induced marine fish stock declines and modern slavery on fishing vessels. She earned degrees from the University of Denver (PhD), Washington University in St. Louis (MSW), and the University of North Carolina at Chapel Hill (BA), and is a member of the Society for Conservation Biology's Social Science Working Group and the Integrated Marine Biosphere Research (IMBeR) Early Career Researcher Network.



April 11, 2019

12:00-1:00pm | Multi-purpose Room, [Curtis Hall](#)

Participatory modeling for environmental planning

Moira Zellner, Associate Professor, University of Illinois – Chicago.

This talk will discuss how the use of visualization tools in collaborative water planning efforts allow people who are planning for future water sustainability to see the hidden aspects of land- and water-use decisions on water supply and flooding, and how such visualization contributes to collective deliberation and innovation. Moira Zellner's team developed a collaborative complex systems modeling approach, where stakeholders worked in small groups around different types of models—from highly abstracted models to geographically detailed models of land use, water use, and water dynamics—to recognize and assess the interactive impacts of different planning strategies. This talk focuses on the modeling and facilitation strategies that supported stakeholders' planning with an understanding of complexity.

[Dr. Moira Zellner](#) is an Associate Professor of Urban Planning and Policy at University of Illinois – Chicago. Born in Buenos Aires, Argentina, Moira earned her undergraduate degree in ecology at the Centro de Altos Estudios en Ciencias Exactas and pursued graduate studies in urban and regional planning and in complex systems at the University of Michigan . Before coming to the United States, she worked as a consultant on environmental issues for local and international environmental engineering firms and for the undersecretary of environment in the city of Buenos Aires. Dr. Zellner's current work includes greenway development and river restoration projects in Miami Beach and in California, and transportation surveys. In her position at UIC, she has served as primary investigator and co-investigator for multi-disciplinary projects studying how specific policy, technological, and behavioral changes can effectively address a range of complex social and environmental problems, where interaction effects make responsibilities and burdens unclear. Her research also examines the value of complexity-based modeling for participatory policy exploration and social learning with stakeholders. Moira teaches a variety of workshops on complexity-based modeling of socio-ecological systems, for training of both scientists and decision-makers.



April 18, 2019

12:00-1:00pm | Multi-purpose Room, [Curtis Hall](#)

Working with industry to achieve results – Is it possible?

Eva Birk, U.S. DOT's Federal Highway Administration, Environmental Program Manager

Are most polluters trying to “beat” regulations, or is the bigger issue that one needs a PhD to understand even our most basic environmental laws? This presentation will describe how agencies can form unique partnerships with a stakeholder group that often has the most intimate knowledge of what works and doesn't work on the ground – regulated parties. Eva Birk will share experience working on improved Clean Water Act permitting with national stakeholders in Washington, D.C., as well as simplified Endangered Species Act consultation for Atlantic Salmon in Maine. She will offer tips and tricks for how to stay sane, have fun and advance your career while navigating historically fraught relationships between polluters, nonprofits and regulators.

[Eva Birk](#) manages U.S. DOT's Federal Highway Aid environmental program in Maine. She provides support on a wide range of regulatory issues for large infrastructure projects, working with stakeholders such as State DOTs, Tribal Governments, NOAA, USFWS, Army Corps and EPA. Prior to her work in Maine, Eva served as an ORISE Science and Education Fellow in US EPA's Office of Water, and later represented the National Association of Homebuilders (NAHB) in Washington, D.C. on several environmental streamlining initiatives related to private development. Eva has a Bachelor's Degree in Environmental Studies from Tufts University, and a Master's Degree in City and Regional Planning from Cornell University.



April 25, 2019

12:00-1:00pm | Multi-purpose Room, [Curtis Hall](#)

The power of story

Ari Daniel, Senior Digital Producer, NOVA

People are inundated with news and ideas — screens are constantly funneling content into our brains. So how do you get someone to care about something you care about, like an environmental issue? Ari Daniels argues that storytelling packs one of the most powerful punches, and he will explain how he uses stories — on the radio, in video, and at live shows — to get people to stop and listen.

[Ari Daniel](#) has always been drawn to science and the natural world. As a kid, he packed his green Wildlife Treasury box full of species cards. As a graduate student, Ari trained gray seal pups (*Halichoerus grypus*) for his Master's degree at the University of St. Andrews, and helped tag wild Norwegian killer whales (*Orcinus orca*) for his Ph.D. at MIT and the Woods Hole Oceanographic Institution.

These days, as Senior Digital Producer for NOVA and an independent science reporter for outlets including public radio, Ari works with a species he's better equipped to understand — *Homo sapiens*. He has reported on science topics across five continents. He is a co-recipient of the AAAS Kavli Science Journalism Gold Award for his radio stories on glaciers and climate change in Greenland and Iceland. He also co-produces the Boston branch of Story Collider, a live storytelling show about science.

