ENVS Newsletter
May 2013

Lunch & Learn Series
Join us for our lecture series.

Student Work
We highlight student work not only on our website, but also on Youtube and Vimeo!

Message from the Director

On behalf of the Environmental Studies program, I want to congratulate the 2013 Graduating Class on their accomplishments and wish them all the success in their future endeavors. Hopefully someday, you will return and share your expertise with the next generation of Tufts students.

I also want to take this moment to thank past and present members of the Environmental Studies Executive Committee (Edith Balbach, Ujjayant Chakravorty, Julie Dobrow, John Durant, Danielle Jenkins, Jonathan Kenny, Sara Matasci, Jessie Pearl, Ann Rappaport, Michael Reed, Jack Ridge, Frances Wilburn), as well as Ann Greaney-Williams, for all their help over the past three years. Without their efforts, the new curriculum and the many other new features of the program would not have come to fruition.

In closing, I would like to say that this year was the most successful run for our Lunch & Learn lecture series, with John Edel of the Plant topping our attendance at 54 visitors and Joseph Wardwell of Brandeis University coming in a close...
second at 43 visitors. Overall, the average attendance for the series soared to 34 visitors, including students, faculty, staff and local community members. We look forward to an equally successful series extending by Tufts own Justin Hollander, Urban and Environmental Policy and Planning, kicking off the program, together the rest of next year’s schedule over the summer and welcome suggested speakers. Our speakers span the disciplines, include both faculty and alumni working in the field, while ensuring a diverse cultural and interdisciplinary nature of environmental work.

I wish all of our students, faculty and staff a satisfying and productive summer.

Colin Orians

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**Women and Environmental Careers**

by Mae Humiston and Ann Greaney-Williams

It is becoming more and more clear that both women and men have a strong role to play in advancing sustainable development. Women are poised to play an even more important role. The majority of the Environmental Studies Class of 2012 (81%) were women—and inspiring ones at that. Moreover, many women have led many environmental groups on the Tufts campus. We expect that these women will have careers in fields related to environmental issues, from environmental communications to science, teaching and mechanical engineering. The future is generally bright. If trained effectively, they will have the knowledge and an understanding of legislation, policy and approaches that can aid in developing and advancing new technologies (Assaref and Damri, 2009). They will become our future leaders in many fields.

A growing number of women are involved and interested in environmental matters and are joining environmental careers. Some explain this trend as an effect of “women’s higher levels of empathy, altruism, and personal responsibility” (Caiazza and Barrett, 2003). Some point to history, when predominantly male decision-makers put polluting infrastructure or toxic waste near marginalized or vulnerable peoples, including women, causing women in the sciences and public policy. The United Nations itself is leading the charge for more female involvement in the climate debate, asking for UN Women advocates to assist in “achieving equitable and inclusive” solutions to sustainable development and empowering women as “integral to mitigating and adapting to climate change” (UNWomen, 2012).

Consider some of the biggest names in the environmental justice world. Rachel Carson essentially opened the door for the environmental justice movement through her work as a scientist and author. Lois Gibbs demonstrated organizing against hazardous waste dumping, leading to the creation of “Superfund” site designation, and brought attention to the idea of conservation for the benefit of species beyond humans. These women made and are making huge impacts on topics related to environmental justice and have helped make it possible for future women to do the same.

Empathy and altruism alone cannot explain the increase in the presence of women in environmental careers. There is also an academic and practical appeal that comes with the skills needed to protect our planet. There are environmental knowledge areas, from engineering to writing to planning, and men have dominated traditional fields. There has been a push to get more women into science and technology fields, and many women a environment do not have to be exclusive. As the Executive Director—a woman—of the New York Water Environment Association writes, “Environmental careers blend altruism with science balanced with strong communication skills” (Cerro-Reehil, 2004). Julie Nelson, of the University of Massachusetts, Boston is actively questioning gender stereotypes in the field of economics and how it is affecting economic behavior and policy around climate change (Nelson, 2012).

While there is evidence that the fields of architecture and engineering, highly related to the U.S. energy sector, are still male-dominated (Cech, et al., 2013; NSF 2007a), there is also evidence that these fields are pushing to
2011; RAIC, 2013) and women have made more consistent headway in science, technology, engineering related to social science, urban planning and the natural sciences (Cech, et al., 2013). This trend is even more pronounced at the university level in programs attempting to integrate women more effectively into engineering programs and tenured STEM teaching positions (MIT, 2011; Northeastern University, no date).

With women in science and engineering fields earning an average of 86% what their male counterparts do (Cech, et al., 2013) and men outnumbering women "in all sectors of science and engineering employment" (de Welde, et al., 2007), women have a way to go before equal integration. However, there is evidence that changes ranging from workplace hiring parity and gender equity can be made to equalize representation in those fields. More and more men are becoming involved in child rearing and other practical home management strategies and they also need to be supported in these efforts (Dormert, 2013; Harrington et al., 2012). With concerted effort, we can balance policy changes that will benefit both women and men.

We must ask ourselves deeper questions to understand women’s roles in the environmental economy after they depart colleges and universities. How are we defining the "green economy" and are we limiting our definition to male dominated fields of study, like architecture and engineering? If women are entering the workforce, must be clear about where they are going in the short- and long-term. We see many students going into marketing and education, public policy and public health. Why is our definition of the "green economy" weighted toward the energy sector, architecture, and engineering? Is it not possible that the green economy is a broader matrix of careers? We must, while continuing to push to improve diversity in STEM fields where women are underrepresented, also revel in those fields that are the brick and mortar of civil society—business, communications, policy and health—environmentally focused careers where women already have a strong foothold.

Bibliography


Faculty Profile: Patrick Forber

by Savannah Dix

A few weeks ago, I had the pleasure of speaking with one of the newest Environmental Studies advisors, Tufts Associate Professor of Philosophy, Patrick Forber, as he drank his morning coffee in Sydney, Australia. Dr. Forber has spent the spring on fellowship at the Centre for the Foundation of Science at the University of Sydney, where he is continuing research on the philosophy of science. I was not previously familiar with this discipline, which Forber described as the “science of science,” but it did not take long for me to understand that the questions his research attempts to resolve have broad implications for a range of other fields. The philosophy of science, Forber explained, deals with such issues as the nature of evidence, the processes through which we determine if information is indeed “fact” or if it is simply a theory. Essentially, the philosophy of science draws into question the way that science “works” (or does not work). Most recently, Forber has focused on the science of the deep past, specifically evolutionary history, considering the ways that scientists compile evidence of human and biological development throughout earth’s history.

Originally from Denver, CO, the young Patrick Forber was studying marine ecology at UC Santa Barbara when he first began to develop an interest in the means and methods through which science establishes knowledge. Later, at Stanford, Forber earned a PhD in philosophy while also earning a masters in biology. Throughout his education and career, Forber has worked between and across disciplines, often on the border of the sciences and humanities. Even now, while he professes and researches mainly in philosophy, Forber has been working with a professor at Northeastern University modeling evolutionary game theory. Dr. Forber has also recently been working with Tufts' professor Michael Reed, and the two are in the preliminary stages of developing a seminar on the theory of decision making in conservation biology, which would explore the issues that arise when funds should be allocated to protect one given species over another. Dr. Forber noted that he has enjoyed having Environmental Studies majors in his philosophy classes, because many environmental issues are rooted in major
Dr. Forber has been a professor at Tufts since 2006, where he has taught a number of seminars philosophies of biology, science, and choice. Students in Environmental Studies may have taken Dr. Forber, which counts towards all of the Environmental Studies Program tracks. When he returns from Australia in the Fall, he will be a new advisor for students in the Environmental Studies Program, and he especially encourages students with interdisciplinary interests to seek him out on campus. Although his focus is not strictly on the environment, Dr. Forber has a wealth of experience both professionally and academically in navigating the realm between humanities and science, a task that faces many majors in this program, and he will surely prove a great asset as an Environmental Studies advisor.

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**Congratulations to Our 2013 Graduates**

by Ann Greaney-Williams

On May 19, 2013, Environmental Studies celebrated the graduation of 27 of our students, including 14 Environmental Science, 12 Environment and Society, our one and only Environment and Technology track major, Rose Eilenberg, and our very first Environmental Communications graduate, Katie Kidwell. 59% of this year's ENVS graduates were female and 41% male, compared to last year's 81% female to 19% male graduation rate. Good job, guys, for evening out the ratio!

We wish all of our graduates every success, and congratulate Danielle Jenkins and Jessie Pearl for jointly being awarded the Nancy W. Anderson Award; Danielle Jenkins being awarded the CMS Senior Project Award for Excellence in Environmental Communications, and the Tufts Research Visualization Award for a video she made for Nancy Gleason's Conflict and Natural Resources Class; and Spencer Rubin for winning the Class of 1911 Prize Scholarship and Phi Beta Kappa.

Where are our graduates going? Thought you might like to hear about some of their more immediate plans. We know that Danielle will be heading to San Jose, CA to teach general education for Teach for America and is looking for literacy to her classroom and to promoting environmental justice. Jessie will be working on conservation projects in Cumberland Island Georgia and Ukiah, CA for the Student Conservation Association during the summer, and will start at Santa Monica Mountains National Recreation Area conducting climate change research and environmental outreach at home state of Colorado to attend Colorado University's Law School in Boulder, hoping to pursue a career in environmental and business law. Madeline Luce will be interning with the City of Medford’s Office of Energy and the Environment back to the west coast in the fall. Anjali Narang will be interning at the Massachusetts Department of Environmental Protection's TURA Program while looking for a job and planning for graduate school. Ben Koethe and Conor Ofsthun will also be pursuing graduate school. Ben will remain in the Boston area for a while, while Conor is planning a cross-country road trip during the summer. Emma Sass also has her eyes on graduate school but will be working at the Harvard Forest as a research assistant in Dr. Elizabeth Crone's lab, investigating butterfly re-invasion of prescribed burned areas in Oregon. And, Melissa Karp will be attending graduate school at...
lab, investigating butterfly re-invasion of prescribed burned areas in Oregon. And, Melissa Karp will be attending graduate school at
the Virginia Institute of Marine Science, the School of Marine Science of the College of Williams and Mary. We look forward to hearing
from all of our majors in the months and years ahead.

It has been a long year of changes here at the ENVS Program and at Tufts generally, with the development of new program tracks,
the already mentioned addition of new advisors, and the approval of the Sustainability House. In addition, the efforts our Tufts faculty and staff have taken towards an official Campus Sustainability policy (http://sustainability.tufts.edu/about-the-office-of-sustainability/sustainability-council-report-release) endeavors will lead to a concrete and effective sustainability management plan that covers not only environmental sustainability concepts that tie our environmental studies curriculum to every aspect of our campus operations and management.

We look forward to continued progress in building our program enrollments as we welcome our incoming freshman class, 156 of which
have indicated openly that they have a strong interest in environmental issues. In the meantime, we will bolster our advisors and students in their endeavors by providing them with opportunities to advance both their educational opportunities and careers.

We have been working diligently to improve the internship program, including attempts to advance collaboration between Career Services and our program, building internship and job opportunities for our graduates. We hope to see much more active participation between ourselves and Career Services and the Office of Sustainability, as well as environmental student groups on campus as the years roll forward. And we aim to expand undergraduate research opportunities with Tufts faculty.

We are diligently working to improve our website and have already begun to schedule our Fall 2013 and Spring 2014 Lunch & Learn
speakers. Keep your eyes open for the full list in August. Students and alumni are welcome to attend, as well as staff, faculty, and our neighbors in the local community.

Lastly, I would like to thank Savannah Dix, our diligent intern who helped us in the above efforts. Savannah will be interning with the Many Hands Farm Corps, while soaking in the glorious New England summers in Western MA, but will return again to Tufts in the fall for further study. I’d also like to thank Mae Humiston and Karen Bustard, our ENVS News journalists who have graduated this year.

We greatly appreciate their efforts to help with program development and to bring ENVS more strongly into the public eye.

2013 Environmental Studies Graduates
Wilson Acuña
Michael Blair
Brynna Bolger
Toby Crispin
S. Rose Eilenberg
Lauren Ferrucci
Brian Fink
Danielle Jenkins
Melissa Karp
Matthew Kennedy
Kathleen Kidwell
Dorine Klapholz
Benjamin Koethe
Rachel Kornetsky
Kai Ying Lau
Jonathan Lowenthal
Kai Ying Lau