

ENVIRONMENTAL STUDIES NEWSLETTER



ENST Research Leading Colgate to a “Greener” Future

Sustainability Coordinator John Pumilio

Going “green” isn’t always as easy as putting your can in the recycle bin or flipping off a light switch. Often it is hard. Planning for a sustainable future, for example, can be hard. Think energy!



Harvested willow crops

In this issue:

<i>Message from the Director</i>	2
<i>Course Offerings</i>	2
<i>Curriculum Revisions</i>	3
<i>Program Assistant’s Message</i>	3
<i>Meet Dr. Baptiste</i>	3
<i>ENST Events on Campus</i>	4
<i>ENST 480</i>	4
<i>Liaison’s Update</i>	4
<i>Henry’s Fork</i>	5
<i>ENST Open House</i>	5
<i>Information and Contacts</i>	6
<i>ENST Calendar</i>	6

Last year, Colgate used 31,000,000 kWh of electricity and over 450,000 gallons of expensive and polluting fuel oil to heat our buildings. That’s unsustainable. We all want to use clean, renewable energy, but what energy choices are most viable? Natural gas? Geothermal? Wind? Solar? Expansion of our wood-chip plant? Investigating the economic, environmental, and social feasibility of these (and other) choices is hard work. Luckily, Environmental Studies students have been up to the task.

For many years now, ENST students have completed research projects looking at sustainability on campus and in our local community. In 2008, for example, ENST 480 students investigated alternative energy solutions for Colgate as their capstone projects. Students researched wind energy, biofuels, energy conservation, and willow biomass. While each of these studies contributed valuable knowledge to sustainability at Colgate, one in particular has become a reality: willow biomass!

The students who conducted this research detailed the process and overall cost of how to grow and harvest willow on Colgate land to be used as a source of heat energy on campus. Their research not only showed that growing willow is possible but it makes good sense. They recommended an eight-acre experimental plot on Hamilton Street only one-mile from the main campus.

2008 was also the year that students created the sustainability fund with their senior class gift. Part of that class gift was used to finance the willow plot. By every measure, Colgate’s willow plot is a student-led project – being both researched and financed by student determination.

On May 13 of this year, 60,000 willow cuttings were planted for the first time on Colgate property. If successful, this plot will provide Colgate with over 900 tons of renewable biomass energy over a 20-year period. Most importantly, our success on this small plot can help support our local economy. We are trying to show struggling central New York farmers that planting fast growing willow is a viable option. Locally-grown, renewable energy can be a truly sustainable initiative.

This year’s ENST 480 students are also focusing on sustainability at Colgate. They are researching geothermal energy, green buildings, electronic recycling, vegetable gardens, and developing a campus-wide climate action plan.

And once again, the class gift of 2010 will be going to fund sustainability. Which of these projects will become a reality? Stay tuned... 🍁

A Year of Change and Opportunity



It is my pleasure to write to you as the new director of Environmental Studies at Colgate. I take leadership of a program that has been wonderfully directed by Bob Turner. Among many other accomplishments, Bob oversaw the construction of our new curriculum, which is briefly described in the newsletter. He also oversaw the hiring of the first full-time faculty member in Environmental Studies, April Karen Baptiste. Faculty and students will be enjoying the results of Bob Turner's work for a long time. Bob still sits on the Steering Committee and teaches in the program. So, this is not a time to say "farewell," but it is certainly a time to say "thanks!"

The long-awaited revision of our curriculum is now complete. The cornerstone of the revision is a new major called, simply, Environmental Studies, which will allow students to connect Environmental Studies with any other discipline on campus. The new major also allows students to connect ENST to the four traditionally associated departments (Biology, Economics, Geography, and Geology) in new ways.

Students declaring a major this spring will do so under the new curriculum. Juniors and sophomores that have already declared an ENST major or minor might like to "opt in" to the new requirements. So, it is important that students understand the new requirements, which are posted at the Environmental Studies website. With help from Ana, I will be hosting an informational session on November 4, 4:30-5:30 in the Ho Atrium over pizza. We are very excited about the new opportunities that come with the new curriculum and expect a great deal of interest.

Spring 2010 Course Offerings

BIOL 211	Evolution, Ecology & Diversity	Cardelus/Fuller/Frey
BIOL 330	Conservation Biology	McCay
BIOL 332	Tropical Ecology	Cardelus
BIOL 340	Marine Biology	McHugh
ECON 428	Sem. In Resource & Environmental Economics	Sirianni
ENST 100	Earth & Environmental Processes	Fuller/ Broekheisen
ENST 101	Social Science Perspectives on Environmental Issues	Meyer
ENST 202	Environmental Ethics	Kawall
ENST 232	Environmental Justice	Baptiste
ENST 333	Uganda Environment, Health & Community	Frey/Scull
ENST 480	Interdisciplinary Investigations of Environmental Issues	Turner/Pumilio
GEOG 111	Global Change: Geographic Perspectives	Brenner
GEOG 121	Human Impact on the Environment	Klepeis
GEOG 131	Intro Environmental Geography	Burnett
GEOG 205	Climate & Society	Burnett/Klepeis
GEOG/	Population Issues	Kraly
SOAN 314		
GEOG 321	Gender, Justice & Environmental Change	Hays-Mitchell
GEOG 325	Water Resources & Society	Brenner
GEOG 336	Biogeography	Scull
GEOL 101	Environmental Geology	Swanger
GEOL 135	Oceanography	Pinet
GEOL 190	Evolution of Planet Earth	Keller
GEOL 202	Petrology	Peck
GEOL 220	Volcanology	Harpp
GEOL 302	Stratigraphy & Sedimentation	Selleck
GEOL 403	Geochemistry	April
POSC 335	US Environmental Politics	Teodoro
SOAN 245	Nature, Culture & Politics	Henke

Get to know Ana Semel, our new Program Assistant, and John Pumilio, Colgate's (first) Sustainability Coordinator. See a bit of what John has been up to on the first page of this newsletter. Get to know Ana a bit on page 3. Better yet, have a chat with Ana and John about how you can get more fully involved with the Environmental Studies Program and Sustainability on campus. Colgate welcomes April Karen Baptiste, Professor of Environmental Studies, this fall. Professor Baptiste offers courses in Environmental Justice among other areas. Get to know April a bit on page 3.

This winter we will say goodbye to Kevin Borden, postdoc in Environmental Health. Kevin is moving on to a position at Digital Sandbox, which utilizes spatial technologies in risk management, in northern Virginia. Kevin's many contributions to Environmental Studies and Geography will be missed.

This is shaping up to be an exciting year of change for Environmental Studies. Ana's weekly updates are a great way to stay abreast of developments. So, if you are not receiving those, let her know. Finally, thanks to all of you who make this program great through your active involvement.

-Tim McCay

Summary of Curriculum Revisions

Please see the detailed description posted at the ENST website

- 📌 **A new major in Environmental Studies.** The new major includes a wide range of elective courses, including more courses in the humanities than currently contribute to the existing majors or minor. The new major can be linked to a depth of study in any other discipline on campus.
- 📌 **Changes to the existing four majors and minor.** Changes to the existing majors and minor will reflect the spirit of the new major – more emphasis on environmental justice, interdisciplinary electives, and the ability to link interests in non-traditional areas to an interest in Environmental Studies.
- 📌 **New courses.** A community-based service-learning course [ENST 390] and a capstone seminar [ENST 490] are important components of the new curriculum.

Meet Dr. Baptiste



April Karen Baptiste, a national of the Republic of Trinidad and Tobago, a Fulbright

scholar and TED Fellow, earned her PhD in Environmental and Natural Resource Policy from the State University of New York, College of Environmental Science and Forestry. She graduated from the University of the West Indies, St. Augustine, Trinidad, with a B.Sc. in Chemistry and Management in 2002, and a M.Sc. in Environmental Management in 2004. Dr. Baptiste joins the Environmental Studies program at Colgate University, having recently completed a Ford Foundation Postdoctoral Fellow in the African American studies Department at Syracuse University. Her research interests are in environmental justice, environmental psychology, the rural poor, and the intersection of natural resource use and policy. Her current research looks at the intersection between environmental psychology and justice in an attempt to understand the factors that shape environmentalism within the Caribbean region. 🌿

Program Assistant's Message

Ana Semel



I am thrilled to be a part of the Colgate community. I grew up in Syracuse and graduated from Boston College last year with a degree in Spanish and a minor

in environmental studies. It is great to be back in Central New York, and I plan to make the most of my time here at Colgate before I head to law school next fall to study environmental law.

This is a wonderful year to be in the ENST program. In addition to the four ENST majors that we have had, we now have an Environmental Studies major, which will make it more feasible for students to pick up a second major or a minor in a related discipline. Read more about the new major on this page. I encourage you all to check out the ENST course offerings for this spring (see page 2). Our campus is also striving to become a model of sustainability, thanks in part to our

first-ever Sustainability Coordinator, John Pumilio. From the willow farm (see page 1) to our goal of making all ENST events waste-free, Colgate is leading the way in sustainable living.

There has never been a more prescient time for sustainability and environmental conservation, and the many student initiatives on campus are a testament to Colgate's commitment to these issues. Whether mentoring local youth, working with farmers to raise awareness about organic farming, or devising sustainable practices on campus, Colgate students have been dedicated stewards of the environment and caring community members. I am looking forward to working with students and the educators who inspire them. 🌿



Dr. Black's presentation

Sometimes there is such a thing as a free lunch. Just ask the students, faculty, staff and friends of Colgate

who show up nearly every Friday afternoon for the ENST Brown Bag luncheons. Held at the ALANA Cultural Center at 12:15 PM, the Brown Bags are a great way to lunch and learn. Each week, speakers who are experts in their field present original research and share their experiences while listeners enjoy a lunch catered by Hamilton Whole Foods. We have been honored to have such eloquent and engaging

lecturers share their knowledge with us. Past presentations have included Dr. Charles Mango's "Ecological Endeavors in the Amazon," John Pumilio's "Galapagos Islands: The Human Relationship with Nature" and Dr. Peter Black's "Earth's Life-Sustaining Buffers." We will have four more presentations this semester from faculty at Colgate and other universities. See page 6 for the list of speakers. Our next Brown Bag is October 30th

with Cornell's Dr. Geisler.

On October 22nd, Colgate participated in the National Teach-In with "90 Minutes on 350," a panel discussion focused on climate change and named for the target of 350 ppm of CO² in the atmosphere that we must strive to attain. Later that evening, the Greenest Videos Contest was held to showcase students' environmentally-conscious films.

We have greatly enjoyed these events and look forward to many more this year. 🌱

ENST 480

Professor Bob Turner

This semester the theme of the ENST senior seminar (ENST 480), co-taught by me and John Pumilio, is *Sustainability in Theory and Practice*. In class we've been discussing readings about sustainability: its meaning(s), how different disciplines think about and work towards sustainability and examples of sustainability initiatives on college campuses and elsewhere. In addition, students have formed four teams to investigate sustainability options at Colgate. One group is investigating the feasibility of geothermal heating; one is developing a plan for a community

garden; one is looking into the energy efficiency of Colgate buildings and possible retrofitting options; and one is working, with students from CORE 128, towards a Climate Action Plan for Colgate. Next semester's ENST 480 seminar will be on the same theme, and run once again by John and me. Student projects might be continuations of this term's projects or new investigations, for example of transportation options, waste and purchasing initiatives, community-based social marketing, or other topics. 🌱

SGA Environmental Policy

Coordinator's Update

Shae Frydenlund 2010

The first half of the semester has been marked by several exciting developments in the realm of sustainability, which can be attributed to the hard work of student leaders and John Pumilio, our resident sustainability coordinator. Major accomplishments thus far include winning the senior class gift, a contribution to the Sustainability Fund, which signifies Colgate's strong commitment to a sustainable future. In addition, the Composting Club has ramped up activity on campus by bringing the

portable compost tumbler to brownbag lunches and campus events, which not only raises awareness about composting on campus, but greatly reduces waste from events. The Greenest Videos contest was also a success, and contest winners were announced during a festive celebration of all things sustainable on October 22nd. With respect to SGA, the Colgate rideboard has seen overwhelming success during its first week, and we hope to see an increase in

carpooling as a result of this convenient website designed just for Colgate students. We have also been working hard to release a punch card that rewards students for utilizing a refillable mug at campus dining locations, so keep an eye out for free drinks courtesy of dining services and SGA. 🌱

Henry's Fork

Over the summer I worked in eastern Idaho as an intern at the Henry's Fork Foundation, a non-profit organization dedicated to the preservation of the Henry's Fork Watershed. I worked with five other interns, one from Stanford, two from Washington and Lee, another from BYU Idaho and one from Colgate. The watershed itself is world renowned for its fly fishing, and the Foundation focuses much of its efforts to keep the river healthy for the rainbow, cutthroat and brook trout residing in the waters.



The interns at Henry's Fork

The main project we worked on was population estimates of young-of-the-year trout throughout the Henry's Fork

River and its many tributaries. We would go out in the field and electroshock 100 meter stretches of stream, capture the trout with nets, measure and mark them and then release them. The process is essential to try and find out where the young-of-the-year trout spend their time. Young-of-the-year trout are extremely important to the overall population of trout in the river and their overwintering habits are largely unknown (Overwintering is where the most casualties occur for these fish and the Foundation is trying to find out a way to maintain water-flow levels from dams upstream to ensure the survival of the most amount of trout without disrupting the water needs of the agriculture downstream.) so we were trying to figure out where they spend most of their time in the summer and see if it translated over to the winter.

Another interesting project we worked on was testing the gene purity of Yellowstone cutthroat trout in remote tributaries. These fish readily interbreed with rainbow trout and are being out-competed by brook trout and are vanishing

from the area. We hiked a few miles into the mountains and again shocked 100 meter stretches of stream and captured thirty cutthroats and took fin clippings to test the purity of their genes. Eventually these stretches of streams will have the brook trout removed and will be stocked with cutthroat trout.

Overall, this experience was amazing. I absolutely loved the people I worked with at the foundation and the other interns. I learned a lot about field work and the intimate relationships in ecosystems. If you ever have the chance, try and go to Idaho. It is a beautiful, wild and mountainous state. 🌲



Adam (far right) and the other interns

ENST Open House



On Friday, October 2nd, ENST held an Open House in the Resource Room for students, faculty and staff. First-years had the opportunity to

meet other ENST students and faculty. Everyone enjoyed a lunch catered by Hamilton Whole Foods as they chatted with friends and filled out their tickets for the raffle. Several local businesses and organizations generously donated the raffle prizes, including the Evergreen Gallery, Price Chopper, Mezza Luna Massage, and Outdoor Education. Many

people also filled out questionnaires that assessed their interest in future ENST outings and volunteer opportunities. We plan on coordinating several activities throughout the year, so check in with us soon or email Ana Semel with your suggestions. Also, be sure to stop by the ENST office (245 Ho Science Center) to check out the resources available to students, faculty and staff. 🌲



Information and Contacts

<p>Campus Ecology Group Made up of students, faculty, administrators, staff and representatives from all environmental groups on campus.</p> <p>Contact: jpumilio@colgate.edu</p>	<p>Students for Environmental Action Leads the community in building a sustainable relationship with the natural environment.</p> <p>Contact: ndunn@colgate.edu konorevole@colgate.edu</p>	<p>Sustainability Council Advises on building practices, conservation issues, energy systems and climate action.</p> <p>Student representative: cchurchward@colgate.edu</p>	<p>Green Thumbs SGA initiative focused on building relationships with local farmers and raising awareness about organic farming.</p> <p>Contact: esabo@colgate.edu</p>
<p>Green Earth Gang Members promote environmental awareness among children ages 8-10 in local schools through experiential and interactive activities.</p> <p>Contact: The COVE</p>	<p>Hamilton Outdoor Group Members teach local Hamilton middle schoolers outdoor skills and an environmental ethic that will encourage them to experience the outdoors.</p> <p>Contact: The COVE</p>	<p>Green Summit Think-tank that brings together students, faculty, staff and community members to solve Colgate's sustainability challenges.</p> <p>Contact: kciolino@colgate.edu</p>	<p>The Loj A residential house on Broad Street that brings together students who share a common interest in the outdoors.</p> <p>Contact: Reslife</p>

ENST Calendar of Upcoming Events

Check the ENST website for updated listings

- 30 Oct** **Brown Bag:** “National Security and Land Use Regulation: Preparing for ‘Disaster Environmentalism’” by Charles Geisler, Cornell University. 12:15 PM in ALANA.
- 30 Oct** **Roots and Shoots Meeting.** 4:15 PM to 5:15 PM in the COVE lounge.
- 03 Nov** **Geology Lunch and Lecture:** “The Future of the Global Oil Industry” by G. Warfield “Skip” Hobbs, Ammonite Resources Company. 11:30 AM – 1:00 PM in 239 Ho Science Center.
- 03 & 04 Nov** **Sigma Chi:** Screening of *Re:Session* to benefit the Rainforest Partnership. 7 PM in Love Auditorium
- 04 Nov** **ENST: New Curriculum Information Session.** 4:30 PM – 5:30 PM in Ho Atrium.
- 06 Nov** **Brown Bag:** “Wantonness in the Heart: A Moral Problem of the Sixth Mass Extinction” by Jeremy Bendik-Meyer, LeMoyne College. 12:15 PM in ALANA.
- 19 Nov** **Film:** *The Road Ahead: China’s First Green Long March.* 4:15 PM – 6:00 PM in Golden Auditorium, Little Hall.
- 20 Nov** **Brown Bag:** “Getting From ‘Here’ to ‘There’: Understanding the Graduate School Process” by Kevin Borden, Colgate. 12:15 PM in ALANA.
- 04 Dec** **Brown Bag:** “Environmental Justice and Aluminum Smelters in Trinidad and Tobago” by April K. Baptiste, Colgate. 12:15 PM in ALANA.