

En viroNews

Newsletter Of Santa Clara University Environmental Studies Institute

Volume XXIV

Spring 2007

1.

SCU celebrates Earth

Although everyday is Earth Day, Santa Clara University recognized the annual celebration Wednesday, April 18th on the Kennedy Mall. Booths of all sorts filled the lawn in front of the Benson Memorial Center, while the towering rock climbing wall provided by the Climbing Club loomed high above. Joined by a variety of student organizations including the Labor Action Committee, the Fair Trade Coalition and the College Democrats, the Green Club of SCU hosted the all-day festivities to honor the planet.

Santa Clara students and faculty enjoyed meeting the offcampus guests, including "Joe Peace" who generously shared his handmade peace pendants, Silicon Valley Power who distributed energy-efficient light bulbs, and the Green Party of California. Schoolchildren from neighboring day programs were delighted to make "recycled art" and win prizes by playing recycling games as part of the nationwide RecycleMania campaign. Students living in the dorms could plant herb and flower seeds to brighten up their living space, or tie-dye a Green Club t-shirt to keep as an Earth Day memento.

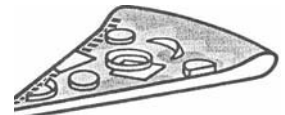
Environmental education booths were scattered across the grass. Computer programs informed students about their ecological footprints, 'Did You Know' water bottles and t-shirts listed 10 easy ways to live more sustainably, and Green Club members and ESI faculty and staff were scattered among the visitors answering questions both big and small. In conjunction with Earth Day, the SCU Library held a used book sale displaying book topics ranging from folksongs to chemistry. The integration of the SCU community of students, faculty and staff along with neighboring Silicon Valley support made the Earth Day celebration of 2007 an overwhelming success.

ENVS Majors and Minors

Mandatory May Advisin~ Plus Pizza

Santa Clara University's mandatory May advising period is fast approaching. All students must meet with their advisors between April 30th and May 11 th in order to enroll for Fall classes. The Environmental Studies Institute will be hosting advising sessions for ES majors on the following dates:

- Monday, April 30 from 11 am - 1 pm
- Tuesday, May 1 from 5 - 6 pm
- Friday, May 11 from 4 - 5 pm



Please bring a print out of your degree audit, a rough plan of courses to be taken in 2007-2008, and any questions you may have.

All sessions will be held in the ESI conference room (at 874 Lafayette Street) and pizza will be served.

Are you a junior? Don't for~et the new internship requirements!

A reminder to junior ENVS majors-you must complete your approved internship by the end of this summer and enroll in ENVS 198 for fall in order to complete your internship requirement. The internship, which must be approved in advance by the ESI director, can be a faculty-sponsored internship or off-campus work with an environmental focus, amounting to at least 100 hours of work. After completing the internship, you must enroll in ENVS 198 in fall of your senior year to get academic credit for the work. The class will meet once a week and will help students reflect on their internship and prepare for future careers. Remember, you must get your internship approved in advance! Don't delay!

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Winter 2007 Restoration Work Days at Ulistac Natural Area

Saturday, May 5 9:00 am - 1 :00 pm
Sunday, May 20 9:00 am - 1 :00 pm
Saturday, June 2 9:00 am - 1 :00 pm
Sunday, June 17 9:00 am - 1 :00 pm
Saturday, July 7 9:00 am - 1 :00 pm
Sunday, July 15 9:00 am - 1 :00 pm
Saturday, Aug. 4 9:00 am - 1 :00 pm
Sunday, Aug. 19 9:00 am - 1 :00 pm

Volunteers are needed at Ulistac Natural Area, the only natural area in the City of Santa Clara. Join us to weed, water, and mulch our native plant bird and butterfly garden. New volunteers are welcome! Wear long pants and sturdy shoes; bring a lunch and water. Gloves, tools, and instructions are provided. Only heavy rain cancels a workday. Visit [.b.11J2.://www.scu.edu/envs/ulistac](http://www.scu.edu/envs/ulistac) for more information.

Ulistac Natural Area is located on Lick Mill Boulevard, between Hope Dr. and Tasman Dr. in Santa Clara, CA

Contact the Ulistac Outreach Center at:
Phone: 408.554.5519
Email: ulistac@scu.edu

The Ulistac Natural Area is the only 41 acres of habitat in the entire of City of Santa Clara. When restoration of the park is complete, it will contain seven California native habitats, including a 1/2-acre Bird and Butterfly Garden, oak woodlands and wetlands. Directions to Ulistac are on the Restoration Project's website: www.scu.edu/envs/ulistac



ENVS 39: Drawing from Nature - Fall 2007!

Release your inner artist!

For the first time ENVS 39, Drawing from Nature, will be offered during the regular academic year. Edward Rooks will help you develop your skills using a variety of media and techniques. For more information on Edward, visit: <http://www.rooksart.com/>

Picture (at right) drawn by previous ENVS 39 student, Amy Chan (SCU '06)



ENVS Students Research Campus Greenhouse Emissions

What better place to study the greenhouse gases that contribute to global climate change than right here at home? For the past quarter, ESI's sustainability intern, Peter Thamer, a junior environmental science major calculated the campus' carbon emissions by cataloguing SCU's energy expenditures and converting them to CO₂ equivalents. This required adding up everything from building electrical use to the amount of gas used by the landscaping staff for leaf blowers and lawnmowers! Peter says the work has been rewarding because "I have been able to use the theories and subjects I've learned in class and apply them in a practical setting. Not only is the experience valuable for my vocation in environmental science, but my work also contributes to the overall sustainability of SCU." As a member of Sustainable Silicon Valley, SCU has committed to reducing its carbon emissions below 1997 levels, and Peter's work is helping the campus to meet this target.

Students in Virginia Matzek's ENVS 11 (Introduction to Environmental Science) course are also studying the carbon impact of commuting by SCU faculty, staff, and students. Through surveys administered by the students, the class will calculate the total carbon emissions from current SCU commutes, and also try to quantify the change to the university's carbon footprint that would result if yearly passes to ride Caltrain were offered as an employee benefit. The campus location across from the Caltrain station makes it ideal for train travel up and down the Peninsula, but the proportion of SCU commuters who regularly use the train is not known.

Internships and course work that involve real-world research give ESI students training in quantitative skills, and provide data useful to the campus.

Spring 2007 ESI Seminar Series

- April 13 Michelle Bezanson, *Anthropology, SCU*
Primates, life history, & locomotion
- April 27 Logan Hennessey, *Environmental Sci., Policy & Management, UC Berkeley*. Economic transformation and indigenous resistance: the impact of gold and diamond mining on indigenous communities in Guyana.
- May 11 Ed Conor, *Biology Dept., San Francisco State University*
Designing efficient sampling plans for ecology and conservation.
- May 25 Walter Koenig, *UC Berkeley, Hastings Reserve*
Threats to California oaks and the species that depend on them.
- TBA
- June 8

Seminars begin at noon, and are held in the Casa Italiana Commons. Light refreshments are served from 11:45 am.

Contact the ESI office at (408) 551-7086 if you have any questions or if you have a disability and require a reasonable accommodation.

ENVS 115: GIS in Environmental Science L&L this Fall

GIS is a "must-take" course for ES majors!

GIS (or Geographic Information Systems) are effective tools for capturing, combining, analyzing, and displaying geographically referenced data. With the help of GIS you can visualize your data with ease, analyze and understand connections between different types of data, and convey your results and message more clearly - whether your audience consists of your peers, your potential customers, or stakeholders in a debate. In this class, students will learn the basic concepts and techniques of utilizing GIS to study and model environmental issues. Each student will propose and carry out a GIS project with an environmental application. Possible topics include land use change, pollution, and population growth issues.

Fall quarter 2007, T/R at 11 :50 (Lec) and T/R at 2: 15 (Lab)

RecycleMania Results

Grand Champion. SCU Standing: 43 of 77

1. Cal State San Marcos
2. Rutgers University
3. Lamont-Doherty Earth Observ. of Columbia Univ.

Per Capita Classic. SCU Standing: 107 of 175

1. Lamont-Doherty Earth Observ. of Columbia Univ.
2. Sheldon Jackson College
4. Kalamazoo College

Waste Minimization. SCU Standing: 12 of 66

1. Univ. of Texas at Austin
2. City College San Francisco
3. Colorado State Univ.

Gorilla Prize. SCU Standing: 83 of 178

1. Rutgers University
2. Stanford University
3. University of Florida

Paper Recycling. SCU Standing: 78 of 111

1. Lamont-Doherty Earth Observ. of Columbia Univ.
2. Medical Univ. of S. Carolina
3. Stanford University

Cardboard Recycling. SCU Standing: 64 of 104

1. West L.A. Comm. College
2. Cal State San Marcos
3. Rutgers University

Bottles/Cans Recycling. SCU Standing: 36 of 112

1. Kalamazoo College
2. Rutgers University
3. University of Oregon

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SCU ES and Biology Majors Present Research at West Coast Conference

SCU seniors Kathleen Powers, Stephen Maurano, and Lindsay Wenger (in association with Dr. Bill Eisinger) have been monitoring arsenic levels in San Jose's Guadalupe River watershed. The students will present their findings at the West Coast Biological Sciences Undergraduate Research Conference on April 28th. This year the WCBSURC is being held at Loyola Marymount University.

Faculty & Staff Accomplishments

Joy of Garbage gets down and dirty with field trips

Students in ENV5 10, Joy of Garbage, got very close to their subject this year by taking field trips to a sewage treatment plant, household garbage transfer station, and an electronics recycling facility.

At the sewage treatment plant, students followed the path of sewage from its initial intake pipes, through the removal of scum and sludges, and watched the water get progressively cleaner as contaminants were removed through the action of algae and decomposing bacteria. "At the end, we were told that the water was clean enough to swim in, but nobody wanted to take them up on that offer," says Matzek.

The Sunnyvale SMRT station processes household trash and recyclables from three Bay Area cities, and students watched huge trucks tip the garbage out on the tipping floor, where it was raked, sorted, and sent on belts through the plant. Some students were shocked and surprised to find out that at one stage, workers sift through the garbage by hand, pulling out recyclable glass, plastic, and paper products that consumers have disposed of in the trash.

The e-waste plant also held some sobering lessons for the students, due to the sheer volume of discarded and obsolete computers and electronics goods. The plant recycles plastics, glass, steel, aluminum, precious metals like gold and silver, and toxic heavy metals like lead, from dead electronics equipment. "The students were walking by huge pallets loaded with thousands and thousands of cell phones," says Matzek. "That represented only a fraction of what they process in a year."

Joy of Garbage, which treats waste issues from an interdisciplinary perspective, satisfies the non-lab science requirement.

Photo by: Chuck Barry



Virginia Matzek's (ESI) course ENV5 10: The Joy of Garbage was profiled by the *Chronicle of Higher Education*.

Michelle Marvier (ESI) and former SCU undergraduate Sabrina West contributed a chapter, "Ecological risk assessment of GE crops: Getting the science fundamentals right" to the book *Genetically Engineered Crops: Interim Policies*. I. E. P. Taylor, ed. Haworth Press, Binghamton, New York, pp. 57-73, 2007.

Peter Kareiva (ESI) is a co-author on a recent publication exploring the use of conservation easements by The Nature Conservancy. The article, "Conservation easements in context: A quantitative analysis of their use by The Nature Conservancy" appeared on pages 125-130 of the April 2007 issue (volume 5) of *Frontiers in Ecology and the Environment*.

Michelle Marvier (ESI) published an article, "Pharmaceutical crops have a mixed outlook in California" in *California Agriculture*. 61: 59-66, 2007

Ed Maurer (civil engineering) was credited in an article by *Sports Illustrated*, entitled "Muddy Slopes," about world cup races being cancelled because of warmer temperatures at some of the world's premiere ski resorts.



Events on-campus

Nancy Unger will present "Gendered approaches to environmental justice," in Benson Parlors B & C on Monday, May 9th from 11:45 am - 1 pm. Lunch will be provided for those who RSVP. For more information, or to RSVP, contact Women's and Gender Studies at wgst@scu.edu or 408.554.4461.

ESI's own Michelle Marvier will participate in a panel discussion of Santa Clara University's book of the quarter, "The Omnivore's Dilemma." This event takes place on Tuesday, May 8th from noon - 1 pm in Benson Center's Williman Room.

Jay Levy will present "The global threat of HIV/AIDS: How does science face the challenge?" The presentation will begin at 5:30 pm in the Sobrato Commons on Tuesday, May 8th. For more information, or to RSVP, contact The Ignation Center for Jesuit Education at bannanevents@scu.edu or 408.551.1951.

Sustainability Corner

Graduation Pledge

Santa Clara University's students are invited to examine the social and environmental consequences of their future careers. Join students across the country in taking the Graduation Pledge, an opportunity for graduating students to define for themselves what it means to be socially and environmentally responsible.

Each year, more than one million students enter the work force. Think of the impact on our society if even a significant minority of applicants and job holders inquired about or attempted to improve the ethical practices of their potential or current employers.

The Graduation Pledge:

"I _____ pledge to explore and take into account the social and environmental consequences of any job I consider and will try to improve these aspects of any organizations for which I work."

For more information, visit Sustainability at SCU:
www.scu.edu/sustainability

New sustainability project matchmaking database: "Play A Greater Part"

"Play A Greater Part" is a database of projects related to sustainability, waiting to be chosen by a student or volunteer. The website engages students in creating solutions for current sustainability challenges as part of their course assignments or thesis. Students can search for sustainability projects that have been posted by non-profits, faculty, businesses and government planners. Faculty can post projects they would like to conduct related to sustainability - and choose students to work on the project. The website was designed by the Society for College and University Planning in collaboration with the US Partnership for Education for Sustainable Development.

www.playagreaterpart.org/

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Sustainability Events

Climate Action Forum

April 24, 7:00 - 8:30 pm, Commons at Kennedy Mall
As a follow up to the successful "Climate Change: What Can We Do?" workshop, this forum will seek to provide students with some very practical information for making sustainable living choices, emphasizing the relative benefits of each. Local climate speaker John Allen will be part of the discussion, as well as several faculty from the University. Location: Kennedy Commons.

Focus the Nation Presentation

April 26 - 7:00 9:00 pm, Commons at Kennedy Mall
Eban Goodstein, the organizer of Focus the Nation, will be speaking about the movement. Focus the Nation is a major initiative to involve schools and other groups from all over the country in an effort to facilitate a nationwide, non-partisan dialogue on climate stabilization.

Fair Trade Friday

May 4, June 1.

Mission Bakery offers a free cup of Fair Trade coffee to participants in the Sustainability PLEDGE. Wear your PLEDGE pin, and bring your coffee card and your own mug!

Move-Out 2007: 2 legit 2 trash it!

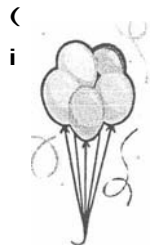
Finals Week, June 2007

SCU campus residents are encouraged to reduce waste during residence hall move-out at the end of the academic year. Unwanted items (clothing, shoes, etc) will be accepted by Goodwill Industries of Silicon Valley - they will place donation bins in each residence hall lobby. Good, but unwanted carpets that are reusable and electronics may be dropped off at collection areas throughout campus (near major dumpsters). Electronic waste (non-functioning computers, printers, televisions, VCRs, stereos, etc) *must* be recycled - do so by placing e-waste at collection areas throughout campus (near major dumpsters). Last year, over five tons of waste was diverted from the landfill - let's double that this year! Visit

www.scu.edu/sustainability for more information.

Success fest ---

5th Annual Celebration of Success!



Wednesday, May 23rd

3:30 - 5:00 pm

Wiegand Room and Foyer, Arts & Sciences Building

Join us for a year-end celebration of ESI accomplishments and the 2007 graduating class of ES majors!

6.

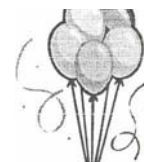
+ Learn about student facul~v and staff projects related to the environment. + Showcase your own environmental research or ot.her projects during the poster session .• Certificates will be handed out to all ES minors!

Schedule of Events:

3:30 - 4:00 Welcome & ESI slide show (Wiegand Room)

4:00 - 4: 15 Certificates granted to ES minors (Wiegand Room)

4: 15 - 5:00 Poster Session* + Hors d'oeuvres Reception (A&S foyer)



Internship Opportunities

These internship opportunities have recently come up. For more opportunities, please check the ESI website or send an e-mail to fernandez@scu.edu get on the ESI mailing list for regular announcements.

◆ Naturalist Internships

Marin County Outdoor School, located in the beautiful rolling hills of West Marin County, is seeking individuals to deliver hands on science curriculum to 5th and 8th grade students in an outdoor setting. Interns will be trained to lead hikes and activities in various habitats, including bay-oak woodlands, grasslands, pond, creek, tide pools, and the ranch organic garden.

Qualified applicants will have experience working with children and completion of college level course work in the Natural Sciences, Environmental Education, Natural Resources Interpretation, Agricultural Sciences or Outdoor Recreation field.

To apply send a completed classified application, cover letter, resume, and three references with phone numbers to: Filson Jones, Naturalist Supervisor, Marin County Outdoor School, 1700 Marshall-Petaluma Rd., Petaluma, CA 94952.

To download a classified (universal) application visit: www.WalkerCreekQuartz.org; TEL: 415/451-3302; FAX: 415/603-0854; E-mail: esi@scu.edu

◆ SCU Recycling Coordinator Internship

The primary responsibilities of the intern will be to 1) develop and implement recycling education programs for SCU students, faculty, and staff, 2) explore ways to improve SCU recycling and waste management efforts, and 3) monitor and report campus recycling and waste data. Familiarity with the concepts of sustainability, recycling, and waste management are important, as is experience developing education materials. The successful candidate will be self-motivated, well-organized, creative, with good interpersonal and written communication skills. Experience with word processing, spreadsheets, and presentation software is also important.

Summer start date is preferred. Hours are fairly flexible, and in addition to a pay of \$13 per hour, the intern may get academic credit through ENV5 198. All majors are welcomed.

To apply, submit a resume, two references with phone numbers (faculty or work supervisors), and a one-page cover letter in which you state why you want the job, what skills you would bring to it, and how this job fits into your future career plans.

E-mail to lsomwell@scu.edu or drop off at the ESI office located at 874 Lafayette Street by 5:00 pm Friday, May 11.

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EnviroNews is prepared by the Environmental Studies Institute. Comments or Suggestions? Send to esi@scu.edu.

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