

EnviroNews

Newsletter of the Santa Clara University Environmental Studies Institute

Volume XIX

Fall 2003

Upcoming Winter Courses

ENVS 144: Natural History of Baja

Winter Quarter 2003 course with Spring Break Immersion Trip to Baja, Mexico.

Applications will be available early November 2003 in DS 204. Enrollment by permission of instructor only. Questions? Contact Professor Weber (sweber@scu.edu) or Dahlhoff (edahlhoff@scu.edu) for more detail.

ENVS 101: Capstone

"Biodiversity" is the buzzword of the day for environmentalists. International treaties, federal policy, state policy, and even local laws all seek to protect biodiversity. We will through the course conduct a meta-analysis that examines all published data concerning what happens following the removal of species. We will then ask what are the biological, social, and policy implications of these data. Our analyses will be stratified so that the answer can be contingent on geography and type of species. Students will learn some ecology, statistics, and international policy, and with luck, be co-authors of a major scientific contribution.

NEW COURSE

ENVS 145: Environmental Technology: A survey of modern environmental technology

The objective of this course is to a variety of environmentally conscious technologies. The course will address "bleeding edge" as well as more traditional technologies that enhance the quality of all life forms in both the developed and developing countries. The course will concentrate on Environmentally Conscious Technologies used in the following general areas: Air quality, Biotic systems, Climate, Energy, Land, Population, Transportation, Waste, and Water. This course fulfills the University Technology Requirement, and will be taught by Dr. Neil Quinn, Jr.

Pizza & Advising

Thursday, Nov. 6th

5:30-6:30 PM

Alumni Science 120

Find out more about our
classes and programs!

What's Inside...

Ulistac Volunteer Days	2
Organic Garden	2
TNC Summer Fellow.....	3
Sustainability at SCU.....	3
Principles of a Sustainable Future	4
New Faculty & Staff	5
Students Wanted.....	6

ESF Lectures

Education for a Sustainable Future is the Environmental Studies RLC located in the first six floors of Swig. All are invited to hear our dynamic speakers!

Oct. 28: Farming and Sustainable Agriculture
by *Michelle Marvier* and Guest speaker *Jim Leap*
from UCSC

Nov. 11: Two Views on Recycling and
Responsibility
by *Chad Raphael* and *Dan Klein*

ESF lectures are held in Daly Science 207 from
6:00-8:00 PM

Volunteer at Ulistac

The next Volunteer Days are as follows:

Sunday, October 19th,
Saturday, November 1st, and
Sunday, November 16th
from 9:00 AM-1:00 PM

****Wear layers and bring a snack****

Getting there: Take Lafayette away from campus,
(across El Camino) for about 3 miles. After Sun
Microsystems, turn right on Hope Dr. Hope ends (after 2
blocks) at Lick Mill. Take a left on Lick Mill and the park
is on your right.



Environmental Voices Radio KSCU 103.3 FM

Tune in Sundays 7:00 - 7:15 PM (or stream live from www.kscu.org)

Catch local and SCU environmental news and event updates for the coming week (brought to you by your local SCU Environmental News Correspondent!), international and national environmental news, our featured perspective or news story, and BioSphere, our weekly environmental essay by Shana Weber.

If you have any club meeting or event announcements you would like aired, please send brief submissions to sweber@scu.edu by Thursday for airing the following Sunday.

Organic Garden on Campus

Come help out with the Santa Clara University Organic Garden! Many people don't know that this campus has a Community Organic Garden located between the residence halls of Dunne and Walsh, next to the sand volleyball court. Part of SCCAP (Santa Clara Community Action Program), the Organic Garden is open to anyone interested in organic gardening, sharing with others the joys of watching things grow, and in promoting environmental awareness on campus and the community. As part of the program, we also invite children to the garden, and will take field trips to visit an organic farm.

For anybody interested, we meet every Wednesday at 4:00 PM at the garden, or feel free to contact Jelena Radovic at jradovic@scu.edu or (408) 985-2627.

TNC 2003 Summer Fellow

The TNC fellow for the summer 2003 was Annika Martinsson. Annika was a visiting student at SCU from Lundt University in Sweden during the 2002-2003 academic year. For her fellowship, Annika studied the habitat requirement for an endangered parasitic plant, *Cordylanthus rigidus* ssp. *littoralis* (Cr1), commonly known as seaside bird's beak. Seaside bird's beak is a beautiful wildflower that grows in old sand dunes along the central coast of California. The habitat for this plant has come under increasing pressure from development and military activities. Today seaside bird's beak exists in only 12 sites. In 1982, this species was listed as endangered by the state of California.

Seaside bird's beak is an annual plant that can flower under hot, harsh conditions when most annuals have ceased to grow. Seaside bird's beak thrives in these conditions because it forms parasitic connections to the roots of neighboring plants and draws water, nutrients and photosynthate from hosts to aid its own growth. Little else is known about the biology of this listed species.

Within the realm of plant conservation, rare parasitic plants pose unique challenges. Parasitic plants are not only affected by the physical environment and interactions with pollinators and competitors, but may also be limited by host availability, host quality, host resistance to parasitism, and parasite preferences for particular host species.

To explore which physical and biological factors represent the best habitat for seaside bird's beak, Annika surveyed two populations of this plant located at Fort Ord, CA: a small, declining population inside the UCSC natural reserve and a thriving population just outside the reserve. Her findings show that proactive management of seaside bird's beak populations should focus on limiting the growth of grasses while promoting the growth of shrubs.

Sustainability at SCU

Sustainability is defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (from the United Nations' World Commission on Environment and Development). A sustainability policy is being developed for Santa Clara University. An ad hoc task force was created in the summer of 2003 to discuss sustainability programs at SCU. They have come up with a document that provides an overview of the efforts to integrate sustainability into SCU. Here is an excerpt from that document:

The path to sustainability is seen as a complex process involving interrelated systems; the natural systems that provide our natural resources like air, water, and energy, and those of society including economic and social systems that utilize and distribute these resources. The understanding and shaping of these processes is well underway at Santa Clara University through Environmental Stewardship, Environmental Education and Research, and Environmental Service.

Forging a comprehensive approach to sustainability can help SCU to:

- Enhance its ability to attract outstanding students, faculty, and staff and play a major role in molding a future consistent with the values expressed in the University Mission Statement.
- Be an environmental leader among Silicon Valley institutions, Jesuit institutions, and other universities
- Influence vendors to design more environmentally friendly products.
- Give a voice to sustainability in decision-making.
- Better evaluate strategic capital decisions and seek long-term economic savings.
- Prepare students for a world in which environmental literacy will be a necessary professional skill, and the health of the earth and of life will depend upon their incorporating environmental stewardship into their values

Principles for a Sustainable Future

People care for each other and value social justice and peace . . .

... by for example:

- Insuring access to safe water, food, housing and fuel for all at reasonable costs
- Valuing (and respecting) the roles and contributions of women and girls to society as much as those of men and boys
- Caring for the young, the elderly, those with physical disabilities, and other less powerful or marginalised groups in society
- Treasuring the cultural heritage and well-being of the aboriginal peoples of the area
- Valuing and respecting cultural diversity of all types
- Strengthening local distinctiveness and identity within a mosaic of national and global connections
- Protecting human health and quality of life through safe, clean and healthy environments
- Emphasising primary health care and disease prevention as well as cure
- Maximising everyone's access to education so that all can develop the skills and knowledge to play a full part in society
- Making towns and cities 'human' in scale and form
- Settling disputes through discussion, negotiation and other peaceful means.

Protect natural systems and use resources wisely . . .

... by for example:

- Valuing and protecting the diversity of nature
- Caring for and respecting the life of all species of plants, birds and animals in non-human nature
- Using energy, water, forest, soil and other natural resources efficiently and with care
- Minimising waste, then recovering and reusing it through recycling, composting or energy recovery, and carefully disposing of what is left
- Limiting pollution to levels that do not damage natural systems or human health
- Maintaining and restoring ecosystem health
- Promoting compact cities and towns and the use of public transport
- Living lightly on the Earth.

Value appropriate development and satisfying livelihoods for all . . .

... by for example:

- Creating a vibrant local economy that gives opportunities to meaningful and rewarding work for all
- Ensuring that the fundamental human needs of all are met
- Valuing unpaid and voluntary work in the home and community
- Supporting policies that assign actual social and ecological costs and benefits to goods and services
- Recognising that the standard of living of a community is related to the contributions of people in neighbouring areas, elsewhere in the country and in other countries
- Encouraging the production and consumption of goods and services that do not degrade the natural environment locally or globally or undermine the quality of life of other people, especially those in the South
- Promoting corporate responsibility and accountability to local communities.

Make their decisions through fair and democratic means . . .

... by for example:

- Developing and promoting democratic institutions and processes for decision-making
- Decentralising decision making to appropriate local levels of government
- Promoting government responsibility and accountability to local communities
- Empowering all sectors of the community to participate in decision-making at local, regional and national levels
- Developing the capacity building of Non-Government Organisation (NGOs), neighbourhood and professional associations and other elements of a vibrant civil society
- Eradicating corruption in government and business.

Faculty/Staff News

New Faces

Jeannette Sacman joins the Environmental Studies Institute as the Administrative Assistant. She is an alumnus of SCU with a BS in Marketing. In the 10 years since graduation, she has spent 9 of those years in the technology industry and has been instrumental in expanding various programs that she has been involved in. She has spent the last year at the Center for Professional Development, SCU's continuing education program, ensuring that the center's programs run smoothly. Jeannette is very enthusiastic about joining the Institute and is looking forward to getting more involved in the Institute's programs.

Dr. Jorge Gonzales-Cruz holds a B.Sc. and a Master Degree from the University of Puerto Rico-Mayaguez (UPRM) and a Ph.D. degree from the Georgia Institute of Technology all in mechanical engineering. He joins the Department of Mechanical Engineering of Santa Clara University this fall 2003 where he now teaches courses in thermodynamics, heat transfer, and solar energy. He is actively involved in research related to applications of solar energy, low energy buildings, and atmospheric modeling. His research has been sponsored by the government of Puerto Rico, the US Department of Energy, the National Science Foundation, the National Aeronautics and Space Agency, and several private industries. Dr. Gonzalez has numerous publications in international referred journals and in proceedings of international conferences, and holds two patents in solar energy equipment. He is a member of the American Society of Mechanical Engineers, the International Solar Energy Society, the International Association of Urban Climatology, and Vice-Chairman of the Caribbean Solar Energy Society.

Dr. Ed Maurer holds a BS in Civil and Environmental Engineering from the University of Rhode Island, a Masters in Civil Engineering (Water Resources) from nearby UC Berkeley and a Ph.D. in Civil and Environmental Engineering from the University of Washington. He joins the faculty of the SCU civil engineering department this year. His general areas of expertise are in water resources and hydrologic modeling. His checkered past includes work experience in municipal engineering (in this case, a euphemism for sewer design), climate change studies, western tribal water rights, and rural community water supply projects in Peru. His most recent research is in simulating large scale hydrologic dynamics, looking for potential improvements in long-lead forecasting, and studying regional hydrologic effects of climate change. Find out more about Professor Maurer at www.engr.scu.edu/~emaurer

Faculty Activities

Nancy Unger, was a co-presenter with Marie Bolton at the Society for North America Studies conference, California: Periphery or Laboratory. The paper was entitled, "A Dirty Shade of Grey: California Environmental Propositions in the Late Twentieth Century ". Nancy presented Part One: Establishing California's Fourth Branch of Government. The conference was held in Montpellier, France on June 5-7, 2003.

SCHOLARSHIP OPPORTUNITY

The Bay Area Environmental Safety Group (BAESG), a Not-for-Profit organization based in the Silicon Valley/South Bay Area is currently soliciting applications for a \$500 scholarship from students enrolled in an environmental, health and safety program at either two or four year accredited colleges/universities. The scholarships are intended to promote the educational growth and advancement of Environmental, Health and Safety students by assisting in deferring the cost of registration fees, books, tools, supplies and other related education costs.

Scholarship Applications are due Friday, October 31st at 5:00 PM. Applications may be picked up at the ESI office, Daly 204. Questions regarding the scholarship process can be addressed to Michael Hall at (408) 278-1023 or mike_hall@wvmccd.cc.ca.us.

STUDENTS WANTED

Environmental Studies Research Assistant Position:

Shifting Views of Desert Boundary Change: Dryland Human-Environmental Relationships in 20th Century Sudan

CONTACT: Leslie Gray at (408) 551-7054 or via email at: lcgray@scu.edu
JOB TITLE: Student Assistant
JOB TYPE: FSRAP Work Study Program
WAGE: \$8.00/hr
DURATION: 6-8 hours per week

Job Description:

The student will assist in a research project examining environmental change in Sudan where debates over the expanding nature of the Sahara desert have influenced environment and development policy. The student research assistant will create a database of rainfall in two provinces from 1900-present. The rainfall data will then be analyzed and presented in different formats: rainfall averages over time for different districts, use of mapmaking to create visual representations of rainfall data by region (choropleth maps), and graphs of yearly rainfall versus historical averages. Rainfall data will then be matched to archival material and available technical and academic literature to create an analysis of policy changes in relation to rainfall changes.

This job will be primarily geared towards students interested in environmental studies, development issues or political science. This is part of the FSRAP pilot program developed to support faculty research, to provide mentoring for selected students and to enhance faculty-student interaction.

Qualifications:

Applicants should have some basic skills in data entry, data manipulation, web-based and library research. Knowledge of statistics is a plus. The student assistant will have the opportunity to learn software programs (excel, mapmaker, etc).

Environmental Studies Institute
Daly Science 204
Santa Clara University
500 El Camino Real
Santa Clara, CA 95053

Phone: (408) 551-7086
Fax: (408) 554-2312
ESI Email: ashachter@scu.edu
www.scu.edu/envs

EnviroNews is prepared by Jeannette Sacman. [Comments or Suggestions?](#) Send to jmsacman@scu.edu.

www.scu.edu/envs