

EnviroNews

Newsletter of the Santa Clara University Environmental Studies Institute

Volume XIV

Winter 2002

WINTER COLLOQUIA!

Frances Moore Lappe

author of *Diet for a Small Planet*

Frances Moore Lappe, will visit Santa Clara University to discuss leadership and change, and her newest book, *Hope's Edge: the Next Diet for a Small Planet*.

Aside from co-writing *Hope's Edge: the Next Diet for a Small Planet* with her daughter, Anna, she is also the co-founder of the California-based Institute for Food and Development Policy, Food First. Food First educates people about the causes of World Hunger. Her works have appeared in *The New York Times* and *Readers Digest*, among others. Also, she has received 15 honorary doctorates from distinguished institutions.

Discussion on Leadership and Change

Feb. 14th 1:30 - 3:15 p.m. Sobrato Commons

Hope's Edge: The Next Diet for a Small Planet

Feb. 14th 7:00 - 8:00 p.m. Recital Hall

ESI, the English Department, Women and Gender Studies Program, and the College of Arts and Sciences and others are the sponsors for these events.

SPRING ADVISING

PIZZA AND ADVICE!

Wednesday, February 13th

Alumni Science Commons

5:30-6:30 p.m.

Summer Work Opportunities

- SCU-TNC Fellows- ESI has teamed up with The Nature Conservancy to provide summer research opportunities for SCU undergraduates. Projects involve conservation, economics, policy, and more. Applications will be available in DS 204 after March 1st.
- The Sustainable Communities Leadership Program- The Environmental Careers Organization sponsors this competitive paid undergraduate fellowship. SCLP matches students to California based projects based on an applicant's preference and skills with a leading private company, vital public agency, or dynamic non-profit organization. Deadline for applications is February 15th. Stop by DS 204 for more information.
- School for Field Studies Summer Programs- Spend your summer in Kenya, Australia, the Turks and Caicos Islands, or another SFS locations. You will gain hands on research experience in a supportive atmosphere. DS 204 or International Programs has more information.

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SCU Students in Africa: Slide Show and Ethiopian Buffet

February 22nd

6-7p.m.

Williman Room, Benson Center

SCU Students who studied abroad in Africa will present slides and stories from their experiences.

ESR is back!

After taking a hiatus for the summer and fall, Environmental Studies Radio is back with a new twist.

The Environmental Studies Institute and ESR are proud to introduce a new staff member. SCU student Jill Yamasawa, '04, has joined the team as ESR's new "Forum" producer. Jill will be interviewing SCU faculty, staff, and students as they engage in environmental and social justice work.

So far, Jill has interviewed faculty members Shana Weber and Elizabeth Dahlhoff about the new Natural History of Baja course offered Winter Quarter and Spring Break, and is in the process of interviewing student representatives from GREEN!.

The program remains 15 minutes in length and starts with our *Biosphere* segment, featuring essays written by ESI faculty and SCU students, highlighting current environmental issues or biological topics. Following *Biosphere* is *ES Forum* with Jill Yamasawa hosting conversations with environmental experts and activists.

The program airs on KSCU 103.3 FM every Monday and Wednesday from 11:45 to 12 noon.

www.scu.edu/envs

Check it out.

Ulistac Update!

If you have not been out to visit Ulistac Natural Area lately, why not? The butterfly garden that so many of us have helped plant and maintain is blossoming. The mulch really makes a difference; the soil is improving. At the last workday, many worms were crawling around as people weeded.

For the rest of the winter, Ulistac Natural Area Community Habitat Restoration Project is focusing on maintaining what has been established via our restoration efforts; this means weeding and mulching. This work is less strenuous than planting and previous weeding days, especially with the soft ground. Workdays will be once every four weeks and your help will be greatly appreciated.

Ulistac Winter Work Days

10 a.m. - 2 p.m.

bring a snack, drink provided

Saturday, February 9th

Saturday, March 9th

Just take Lafayette to Hope Dr. (About 3.5 miles). Right on Hope, Left on Lick Mill Blvd. UNA is on the right.

Visit www.scu.edu/envs/Ulistac or DS 204 for more information.

Weekend Fun- Año Nuevo and Elephant Seals

During the long, dull days of winter, too much "cocooning" can quickly turn into a case of "cabin fever." Break out of hibernation with a trip to Año Nuevo to see the wild, wonderful elephant seals. Every year these unusual creatures make their way to this secluded San Mateo County beach (between Santa Cruz and Moon Bay) to mate, breed and raise their pups. To protect the seals, access to the reserve is limited to guided walks.

Reservations for the walks are recommended. Make the trip easy on yourself and your budget by visiting with SamTrans. The convenient package includes round-trip transportation to the reserve and a three-mile walk conducted by a trained docent for only \$12. Weekend trips are available from January 5 to February 24, departing from the Hillsdale Shopping Center in San Mateo at 9 a.m. and 10 a.m. The bus also picks up passengers in Half Moon Bay. SamTrans also will operate trips at 10 a.m. on President's Day, February 18. For more information or for reservations, call the Año Nuevo Hotline at (650) 508-6441.

The Nature Conservancy

Information from <http://nature.org/>

Since 1951, The Nature Conservancy, TNC, has been working with communities, businesses and people like you to protect more than 92 million acres around the world.

TNC Conservation Vision:

The Nature Conservancy's mission is to **preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.**

How can TNC achieve such an ambitious goal?

TNC developed a strategic, science-based planning process, called Conservation by Design, which helps identify the highest-priority places—landscapes and seascapes that, if conserved, promise to ensure biodiversity over the long term. In other words, Conservation by Design allows TNC to achieve meaningful, lasting conservation results.

Worldwide, there will be thousands of these precious places. Taken together, they form something extraordinary: a vision of conservation success and a roadmap for getting there—the Conservation Blueprint. Simply put, by protecting and managing these Last Great Places over the long term, TNC can secure the future of the natural world.

How can The Nature Conservancy protect ALL of these places?

TNC can not buy them all, and certainly can not protect them single-handedly. But by joining together with communities, businesses, governments, partner organizations and people like you, TNC can preserve our lands and waters for future generations to use and enjoy.

Why TNC is Successful:

- * TNC works closely with communities, businesses and people like you. Together, TNC and its sponsors have protected more than **92 million acres** of valuable lands and waters worldwide.
- * TNC practices sound science that achieves tangible results.
- * TNC's non-confrontational approach.
- * Over **88%** of all funds are used directly for conservation!

Did you know?

- * Total acres protected by the Conservancy in the United States: 12,621,000
- * Acres protected by the Conservancy outside the United States: 80,181,446
- * Current number of Conservancy preserves: 1,400
- * Conservancy members in 1952: 554 - Conservancy members in 2001: approximately 1 million

Projects:

All Nature Conservancy projects are guided by field-tested and practical applications of science.

- Berkshire Taconic Landscape
- Climate Change
- Compatible Ventures Group
- Conserve Online
- EcoEnterprises Fund
- The Forest Bank
- Freshwater Initiative
- Geographic Information Systems
- Great Lakes
- Invasive Species Program
- Landscape Conservation Network
- National Fire Management
- Parks in Peril
- Site Conservation
- Wings of the Americas

ESI will be offering fellowships to work with TNC.

Applications to become an SCU-TNC Summer Fellow will be available in DS 204 after March 1st.

BioSphere: California Sudden Oak Death

By Shana Weber

If you ventured through the Santa Cruz Mountains or anywhere else along the coast this past summer, you may have noticed large patches of brown, wilted leaves among the green of the forest canopy. Many trees are dying, and most of them are oaks. Researchers are studying this new die-off and many are alarmed that loss of a significant number of remaining oaks will lead to a breakdown in ecosystem functions.

Oak mortality is actually nothing new. Oaks have been lost due to urbanization, poor land-use practices, pollution effects, changes in soil conditions, and a variety of native and non-native pathogens. This new disease, called Sudden Oak Death, adds yet another stressor to an already compromised system. Since about 1995, tan oaks, coast live oaks, and black oaks have been infected by Sudden Oak Death. Since then, Sudden Oak Death has been confirmed in ten coastal counties, including Santa Cruz, Monterey, and Santa Clara counties.

It took until June 2000 to find what may be the cause of this epidemic. Researchers isolated a non-native fungus-like organism from dying trees. This organism is related to those that caused the Irish potato famine, as well as a cedar root disease in the Pacific Northwest, and oak diebacks in other parts of the world. The same fungus-like organism causing California Sudden Oak Death has also been found on ornamental rhododendrons from Germany and the Netherlands.

The pathogen likely spreads through infected wood, soil, and rainwater. But the main factor is human-caused infection by moving around infected plants and plant parts. And infection is not only limited to Oaks. Bays and madrones are also infected and their leaves contain large spore concentrations that may spread by wind.

It is important to differentiate between native and non-native pathogens. Fungus and fungus-like organisms native to a forest system are largely beneficial in a healthy forest system. Trees that have evolved in the presence of native pathogens have defenses that minimize large-scale damage. Native trees are often defenseless against new pathogens, and epidemics can run unchecked. Dutch Elm Disease and Chestnut Blight are two other epidemics caused by introduced pathogens.

The symptoms of Sudden Oak Death include bleeding from the lower trunk, rapid leaf loss or browning, excessive bark beetle attacks, and black growths from the fruiting phase of *Hypoxylon*, an opportunistic fungus.

Unfortunately, there is no treatment for trees already infected. The best prevention and treatment against spreading is to foster healthy forest growth. Avoid over-watering native trees, avoid compacting or paving the soil over the root zone, prune dead branches, and avoid damaging the trunk or branches of trees. Any weakening in trees natural defenses could make it vulnerable to non-native pathogens.

References:

California Oak Mortality Task Force. 2002. Web: <http://www.suddenoakdeath.org/>

Center for the Assessment and Monitoring of Forest and Environmental Resources. UC Berkeley, 2002. Web: <http://camfer.cnr.berkeley.edu/>

Spring and Summer Environmental
Internship Information is posted in an
ESI case on the Daly Science 200 building (facing Alumni
Science), or stop by DS 204.

SCU Historical Ecology Project

by Elianna Strode

Did you ever wonder what Santa Clara looked like 150 years ago? Who lived here and how they lived? Where streams and rivers used to course through this once fertile land? Or what animal and plant life existed? In the near future, you will be able to satisfy your curiosity.

With the ongoing work of students, faculty, and staff, the Environmental Studies Institute's Historical Ecology project continues to slowly progress as it approaches the one-year mark. The project, designed to facilitate an understanding of the historical and ecological roots of the Santa Clara University campus, is currently in research stages. Thus far, data depicting the ecological changes of waterways throughout this region has been collected from various texts, maps, documents, and manuscripts provided by Santa Clara Facilities Department and Orradre Library archives. During Winter quarter 2002, this data will gradually be compiled using the Geographical Information Systems (GIS) program to produce a map with several layers depicting the environmental changes of riparian areas in the Santa Clara Valley over the past two hundred years. Further work on the historical ecology project may include studying soils, agriculture, habitat types, cultural sites, the development of infrastructure, and expanding the coverage to include the entire South Bay.

Drop This

an editorial by David Zimbra

Read the news and you will encounter environmental issues: global warming, nuclear waste disposal, air/water/ground pollution, and the abuse of wildlife and their habitats. If you read more than just the headlines, soon enough your head will spin in concern, frustration and woe.

If this sensation does not sound familiar, perhaps you are one of the many people who have become apathetic to the issues. After being bombarded for years by scientific information revealing the dire condition of our planet, it is not surprising that individuals feel overwhelmed. Especially when these problems are left without a known solution, or one that would require a widespread change of lifestyle for all peoples. We cannot live in peace due to nationalist tension, economic and civil injustice; how are we to address environmental issues? How can an individual's actions impact the planet? Because of these seemingly unrealistic solutions, apathy happens.

This editorial is not intended to demoralize, but rather to encourage the continuation of preservation and respect of nature. We need to be active in the resolution, be educated in the issues and solutions, and use the tools provided: our vote, our dollar, our voice, and our intellect! What is a rushing river other than a collection of many droplets? In your individual droplet of effort, you possess the power of the river. Remember, above all, this Kenyan Proverb: "Treat the Earth well. It was not given to you by your parents. It was loaned to you by your children."

Spring Quarter Classes

ENVS 2 - Energy and the Environment
ENVS 101- Capstone Seminar
ENVS 121- Environmental Activism
ENVS 198/199 - Research/Internship

ANTH 140 - Food, Culture & Environment
BIOL 5 - Endangered Ecosystems
BIOL 8 - Ecosystems of the Bay Area
BIOL 130 - Economic Botany
BIOL 156 - General Ecology
BIOL 158 - Biology of Insects
ECON 5 - Intro to Economics
HIST 85 - Intro: US Environmental History
PHIL 9H - Ethics and the Environment
PHYS 9 - Intro to Earth Science
POLI 25 - World Geography
MKTG 18 - Principles of Marketing
MKTG 182 - Environmental Marketing
CENG 140 - Water Resources Engineering

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Wednesday, February 13th

Alumni Science Commons

5:30-6:30pm

Calendar of Events

February	February (cont'd)	March
<p>9th - Ulistac Planting 10 am – 2 p.m.</p> <p>9th - BAY AREA VEG FAIR Santa Clara Convention Center 9 am - 6 p.m.</p> <p>12th - <u>22nd AFRICA WEEK (S)</u> <u>Look for posted information about speakers & times!</u></p>	<p>13th - ENVS Pizza and Advising Alumni Science Commons 5:30 - 6:30 p.m.</p> <p>14th - ENVS Colloquia <u>Leadership and Change</u> Sobrato Commons 1:30 - 3:15 p.m. <u>Hope's Edge</u> Recital Hall 7 - 8 p.m.</p> <p>15th - Due Date: HHMI, and Sustainable Communities Leadership Program</p>	<p>1st - SCU-TNC Fellowship applications available</p> <p>9th - Ulistac Planting 10 am – 2 p.m.</p>

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