



CRC's GREEN SCENE

A bimonthly newsletter of the Sustainability Committee at Cosumnes River College

Climate Change And Antarctic Ecosystems: A Pole In Peril

Dr. George Somero's Keynote Highlight of Earth Week

Susan Scott reports...

Dr. George Somero, David and Lucile Packard Professor in Marine Sciences at Stanford University, Associate Director of the Hopkins Marine Station in Monterey, and recipient of many awards during his more than 40 years of research, has been studying how animals live in the extreme conditions of the Antarctic. His research in physiological ecology has been instrumental in reshaping the way biologists think about how genes, cells, and organ systems of animals respond to changes in the environment.

Somero's main message was that Antarctic animals are especially vulnerable to climate change because they inhabit the polar regions—exceptionally cold and stable oceans that have not



Icefish have evolved to thrive in the cold, stable environment of the Antarctic but would likely die at slightly warmer temperatures.

changed in millions of years but are now warming much faster than any other part of the planet.

It may be hard to imagine that anything can survive in water as cold as -1.9°C (-28.5°F) with virtually no variation in temperature, yet under these conditions remarkable animals have evolved. Icefish—the “coolest fish in the world,” joked Somero—have lost the genes to make hemoglobin (the protein that makes blood red and carries oxygen to cells) so their blood is white. But because their metabolism is very slow and there is plenty of oxygen in these cold waters, icefish thrive there. Somero's research shows that organisms like these may lose the capacity to cope with even small changes in temperature; thus, these remarkable icefish would die in the

(SEE GLOBAL, PAGE 2)

In This Issue:

Student Profile:
Donna Leiva 2

Goldman Awards Inspire
CRC Student 3

Greenoccupedia.com 3

Earth Day at CRC 4 - 6

Reader Reviews
Tapped 7

Your Water Footprint 8

More Reader Reviews
Philobags.com,
Burgerville 8

News In Brief:
Take the Graduation
Pledge, Compost
Awareness Week,
Green Scene Awards 9

The increased snowfall associated with a warming climate destroys rookeries of Adelie penguins and puts their survival at risk.



Global Warming Puts Cold Climate Species At Risk of Extinction

FROM PAGE 1

relative warmth of your refrigerator. Not only may slightly warmer temperatures be lethal, but these small increases in temperature may also lead to oxygen deficiencies since warmer water holds less oxygen and accelerates animals' metabolic demands. This alone could lead to extinction.

Adelie penguins are also at risk: rookeries that once had tens of thousands of nesting birds have completely disappeared. These penguins need barren ground for nesting

and sea ice for feeding. Warmer air and warmer water have led to an increase in snowfall during nesting season, a fatal threat to the penguins. Somero showed a dramatic photograph with nesting penguins buried under more than a meter of snow. And as the sea ice is melting, so too the krill-based food chain on which penguins (as well as baleen whales and leopard seals) depend is collapsing.

Somero's talk closed with Thomas Friedman's warning that the "world is flat." The melting Antarctic glaciers and

ice shelves are creating more open water, which in turn accelerates the melting of the ice and leads to rising sea levels that could cover the runways of San Francisco airport and put at risk hundreds of schools, hazardous materials dumps, roads, and power plants.

Dr. Somero reminded his audience that, while the scientific evidence for global warming increases every year, public belief in this science has been declining. A book he recommended, *Climate Cover-Up*, exposes the funding behind climate change naysayers.

Meet our Student Members

Sustainability Student First to Graduate with New ESS Degree

Editor's Note: In this continuing series, we feature one of our CRC Sustainability Committee student members.

Donna Leiva was the first CRC student to graduate in December 2010 with the new Environmental Studies and Sustainability (ESS) degree—as much a surprise to her as to anyone.

In January 2009, after being laid off, she decided to take some classes at CRC to upgrade her computer skills to help her find another job. Inspired by academic success and by several of her instructors, she took more classes, many of which reinforced a new-found interest in all things environmental. One day she realized she needed only a few more classes to be eligible

for a complete degree. Over the course of six intense semesters, not only did she complete coursework for the ESS degree, she also graduated with a degree in geography and will graduate in May 2011 with degrees in general business and business administration.

Following her passion for sustainable living, Donna became a member of the CRC Sustainability Committee and the CRC Students for a Sustainable Future club, and this year she proudly participated in her first CRC Earth Day event.

She looks forward to finding full-time work relating to the promotion of sustainable living, and she is also interested in staying active in various community projects through volunteering.



ESS Student Donna Leiva gets ready for the May graduation ceremony at CRC. Donna is the first to graduate with a degree in Environmental Studies and Sustainability.



Goldman Awards Inspire CRC Student Donna Leiva

Donna Leiva reports...

On Monday, April 11, 2011, I was privileged to attend the Goldman Environmental Prize Awards ceremony in San Francisco. What an awe-inspiring event!

The Goldman family of San Francisco started the Goldman Fund in 1951 to support grassroots environmentalists. Each year, six individuals from around the globe are selected to receive the Goldman Environmental Prize. In addition to this public recognition, award winners receive a \$150K prize to assist their particular grassroots effort.



Raoul Du Toit, Zimbabwe

Hearing these individuals speak, live on stage, about the obstacles they have overcome and the successes they have achieved provided an up-close and personal view of their situations.

Some of their stories were graphic, such as that of Raoul Du Toit in Zimbabwe and his effort to stop the gruesome poaching of rhino horns. Or of Francisco Pineda in El Salvador, whose friends were

murdered by the mining company responsible for the water pollution he is fighting to prevent.



Francisco Pineda, El Salvador

With so much negative news in the media, it was

refreshing to hear of individuals taking the initiative to live their passion and make a difference—ordinary people doing extraordinary things. I made a personal commitment to support such ‘ordinary’ people in the future. Check out the Goldman Prize website at www.goldmanprize.org to learn more about these inspiring individuals.



Green Sleuth: Find Green Career Info At Greenoccupedia.com

Debra Sharkey reports...

The greenoccupedia website (www.greenoccupedia.com) opens with the following questions:

- What's a green job?
- What's a green career?
- What's the green economy?
- What's a green business?
- What are the top green jobs?
- What kind of training do you need for a green job?
- What do you need to know to get a green job?
- Is there a good book on the subject of green careers?

- What are the best online resources?

Greenoccupedia then answers these questions and more. A new feature on the site is the “7 Step Green Job Search Plan”—a handy reference guide for green job seekers.

This helpful, career-oriented website was written by Jim Cassio of Folsom, CA, a workforce development consultant for more than 20 years. Cassio also authored the book *Green Careers: Choosing Work for a Sustainable Future*, available for checkout in the CRC library.



CRC Earth Day 2011: Respect and Responsibility for the Earth



ABOVE LEFT: Students Gayb Cordero, Nick Setnik, Minh Le, and Jesse Morales, from Prof. Steven Coughran's Commercial Music Ensemble, sing John Lennon's "Imagine." Started by the Social Responsibility Committee last year, the Earth Day sing-along has already become a tradition.

ABOVE RIGHT: CRC student Ife George helps participants use computers to calculate their ecological footprints. Check your own footprint at <http://www.footprintnetwork.org/en/index.php/GFN/page/calculators/> **RIGHT:** Students from Prof. Margaret Woodcock's art classes recycle trash into artwork.



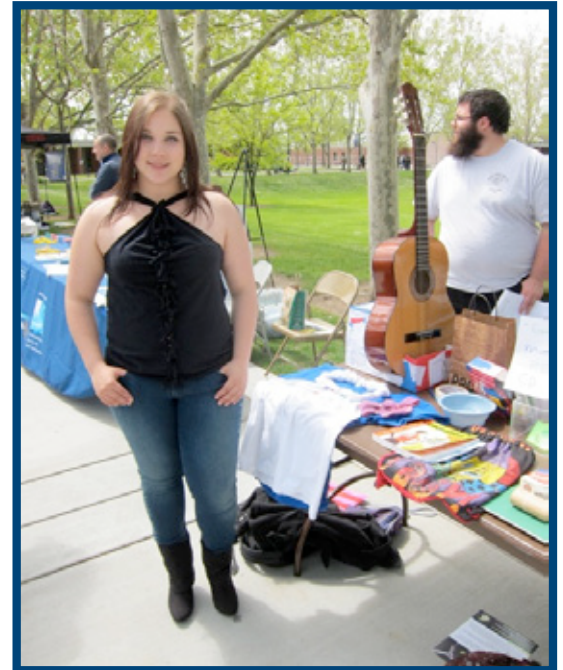
CRC Earth Day: A Campus-wide Celebration



TOP LEFT: Prof. Darlene Mathias carries a sleeping mat crocheted from plastic bags, intended for use by homeless people. Darlene assisted Linda Neal in making the bags (see story *Green Scene*, Feb/March 2011). **BOTTOM LEFT:** Student Donna Leiva's table displayed handmade reusable sandwich and snack bags made by Silke Rover, owner of the Green FLY (theGreenFLY.etsy.com or thegreenfly2010@gmail.com). **TOP RIGHT:** Jared Skillen, aged 12, surveys the haul collected by a team of CRC students (organized by his dad, Prof. Bert Skillen) who removed trash—including three abandoned shopping carts—from North Laguna Creek during Creek Week. **ABOVE RIGHT:** Students Nichole Baldwin, Seng Lor, and Megan Goings manage the Geography & Environmental Studies program's Green Consumer educational display.



Student Groups R-E-S-P-E-C-T the Earth



ABOVE LEFT: Students from Prof. Colette Harris's communications classes advocate for smokers to pick up their litter in their Student Learning Project Go-Green booth.

BELOW LEFT: CRC Students for a Sustainable Future club members Paul Padilla, Ivan Rodriguez, Cesar Aguirre, Michael Lozano, and Jon Conibear stand ready to educate passersby about the social and environmental perils of buying single-use bottled water.

ABOVE RIGHT: Communications student Karyna Fajardo models one of the tops she made from an old t-shirt at her group's Student Learning Project Go-Green table.





Reader Reviews: *Tapped*, From a Student's Perspective

Editor's Note: We excerpt reactions of three students from Prof. Debra Sharkey's geography classes to the movie Tapped, the first film in the new Green Screen Environmental Film Series.



The film *Tapped* was both educational and interesting. I had been unaware that the bottled-water industry is not regulated while our tap water is highly regulated.

Companies such as Nestle, Pepsi Cola, and Coca-Cola have capitalized on this situation and captured big markets on bottled water, pulling the water out of the ground for free and selling it back to consumers—even those living in the state from which the water was taken. I was angry to learn that Nestle was taking water from Maine and other places without the residents' knowledge, and now Nestle is in Sacramento taking water from the American River. Water is a natural resource, yet these companies are selling it back to us at a profit.

These companies want us to think that bottled water is the healthier choice, but it may

actually be hazardous to our health. The bottles are made from plastic containing toxic chemicals such as PET, Trichlorobenzene, and Styrene that cause health problems, including birth defects, reproductive issues, and cancer. The factories that make the plastic bottles are also releasing toxins into the air we breathe. In addition, many of the bottles are not recycled and end up in the ocean, polluting the water and harming ocean life.

I was not surprised to hear that these big companies care more about profits than they do about people, but I am disappointed in their actions. However, I was happy to hear that they now have to state their water source (for example, "public water source") on the label. Maybe consumers will start to take notice and take action.

-- Gloria Bell

"EVERY DAY, 30 MILLION SINGLE SERVE WATER BOTTLES END UP IN LANDFILLS."

-- *Tapped*

Ghandi said, "There is enough water for human need, but not enough water for human greed." But according to the film *Tapped*, water and soda companies are making a huge profit.

For example, in 2008 Nestle made over \$3.6 billion from bottled water. With all the water that is being taken away by these big companies, it is estimated that, by 2030, about 2/3 of people will lack sufficient water.

-- Manuel Adame

"ONLY 20% OF PLASTIC WATER BOTTLES USED IN THE US ARE RECYCLED. MANY OF THE REST END UP IN THE PACIFIC GARBAGE PATCH."

-- *Tapped*

The movie *Tapped* showed how powerful a tool fear can be when people are told that bottled water is 1900 times more expensive than tap water but still choose the perceived 'safer' bottled water.

The bottled water industry is a horrible mistake that derived from a fad and is now destroying the planet and having detrimental effects on all living organisms. I hope we can change some of the laws that allow corporations like Nestle to pump up all the ground water they can regardless of the social and ecological impacts that pumping may have.

-- Nick Fox





What's Your Water Footprint?

According to the National Geographic, "the average American lifestyle is kept afloat by nearly 2,000 gallons of H₂O a day—twice the global average."

What may be surprising to you is that only five percent of that water is used at home (in

toilets, taps, and garden hoses). Nearly 95 percent of your water footprint is hidden in the food you eat, energy you use, products you buy, and services you rely on.

What's *your* water footprint? Check it out with NGS's Water Footprint Calculator at <http://environment.nationalgeographic.com/environment/freshwater/water-footprint-calculator/>

Reader Reviewer Goes On The Road

Repurposing Style: Green is Fashionable (Sonora)

Interested in making green fashionable or 'cool'? On a recent trip to Sonora, I discovered the most amazing handbag store. Beautifully handmade, these unique works-of-art are created from repurposed leather and fabric by Megan Houseberg.



Houseberg earned a degree in Fashion Design at the Fashion Institute of Design and Merchandising. Having lived in Berlin and San Francisco, two of the greenest cities in the world, she decided to marry the concepts of green and fashion. Made from 95% recycled materials—the only new materials are hardware, fasteners, and zippers—each bag is one of a kind. Houseberg shops the local thrift stores for worn leather jackets and cotton remnants that she repurposes into bags and liners.

Houseberg also takes custom

orders. Visit the website, www.philobags.com, to choose your design and color and give any other special instructions.

These bags make great green gifts, perfect ways to show others that green is fashionable and that we can still have many of the objects that we appreciate while lessening our impact on the environment.

-- Lizz Gaylord, student

Welcome to Burgerville! (Oregon/Washington)

After spending a few days on the Oregon Coast, I stopped in at a fast-food restaurant called Burgerville, one of a chain in Northern Oregon and Southern Washington state. Wow! What an amazing find!

Burgerville's motto is "Almost 50 years ahead of its time," and this could not be truer. Burgerville focuses on providing fresh, local, healthy, and sustainable food (such as their locally raised antibiotic-free beef) served in 100% recycled cups and food containers (produced with wind power!). Adding a personal

touch, the walls of the restaurant feature the stories and people behind the ingredients.

Burgerville is also dedicated to helping the local community: 10% of food purchases are donated to local community and environmental organizations, such as EarthShare. Burgerville focuses on health as well. Every receipt lists the nutrition facts for each item ordered. Receipts also include alternative orders; for instance, I ordered the Northwest Cherry Chocolate milkshake (I couldn't resist!) and the receipt suggested a frozen yogurt alternative that would have spared me 300 calories.



With their sustainable farming practices, local farm suppliers, nutrition facts, and genuinely good food, Burgerville sends the message that they are dedicated to people, not profit—a rarity in our increasingly corporate world. Visit their website for more information at www.burgerville.com.

-- Lizz Gaylord, student



Cosumnes River College Sustainability Committee

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Cindy Erickson
Cath Hooper
Christina Ocrant
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We're on the Web!

*Look for archived issues
of the
GREEN SCENE
on the CRC homepage.*

News In Brief...

Graduating Students Can Take the Graduation Pledge

The Campus Sustainability Committee is once again inviting graduating students to take the following Graduation Pledge of Social and Environmental Responsibility:

"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."

Started in 1987 at Humboldt State University, the pledge has spread to over one hundred colleges and universities.

CRC students who choose to take the pledge will sign a wallet-sized card immediately before graduation to serve as a reminder of their pledge (look for the table in the gym). They will also receive a green ribbon to wear on their graduation gowns to make a public statement of their intent to consider the well-being of the world and its inhabitants in their future careers.

One hundred sixty-eight faculty and staff at CRC have already taken a similar Employee Sustainability Pledge. Those interested in joining their colleagues can sign the pledge online at the CRC Sustainability Committee website. – *Andrea Salmi*

Compost Awareness Week

On May 2, Sacramento celebrated International Composting Awareness Week with an event at Hot Italian Pizzeria to teach people the ins and outs of composting. This year, several

sponsors attended, including the City of Sacramento, the Green Restaurant Alliance, and Atlas Disposal Company.

To show how easy composting can be, several demonstrations and exhibits were available: Hot Italian's composting bin, for all leftovers and compostible refuse; a vermi-composting exhibit, showing how to use worms to digest leftover food scraps; and a community garden exhibit, great for those who love to garden and eat fresh, organic, home-grown food but lack space to do so.

The City of Sacramento also showed the small yet eager crowd how to compost in their own backyards.

Hopefully, the Composting Awareness Week event will continue to grow in support while raising awareness. – *Lizz Gaylord*

Green Scene Awards:



Kudos to...

- Prof. Julie Oliver (chair) and the rest of the Earth Week Committee, for another smashing week of events.
- Torence Powell, for using Greenforce funds to purchase Green Screen films.
- the students who took the initiative to form the Students for a Sustainable Future club.
- Prof. Debra Sharkey, for starting the Green Screen Environmental Film Series.
- Prof. Bert Skillen, who organized a student team to participate in Creek Week.