May 28-29, 2004 — COME TO OUR 30th ANNIVERSARY CELEBRATION!

Although Geography had a full-time presence at UCSB in 1963 and offered a bachelors degree in 1966, we have been an autonomous Department only since 1974. And what a 30 years it has been! We are celebrating the anniversary over part of Memorial Day weekend, Friday, May 28, and Saturday, May 29. We’d love to have you join us!

Tour the Department, Explore the Sedgwick Reserve, Dine Under the Oaks

Friday, May 28, we are planning hosted tours of the Geography Department. Those of you who graduated some years ago might especially enjoy seeing the computer labs in which students learn today. We’ll have an alumni reception, where Chancellor Henry Yang and Chair Keith Clarke will speak.

Saturday, we’ll spend at Sedgwick Ranch, a 9.2-square-mile preserve that Duke Sedgwick gave to the University for research into nature’s workings. On the northern edge of Santa Ynez Valley, just an hour from Santa Barbara, the Sedgwick wraps up the flank of Figueroa Mountain, boasting diverse ecosystems: coast live oak forest, blue oak woodland, valley oak savannah, ceanothus chaparral, coastal sage scrub, grassland, willow riparian forest, and agricultural lands. It contains a major geologic fault system and two distinctive geologic formations: relatively young Paso Robles alluvium and much older Franciscan metamorphosed seafloor, including large areas of serpentine. The region has a rich Native American heritage, and at least one Middle Chumash village (1,500 to 2,000 years old) rests on site. The reserve’s large size enables replicated, large-scale field manipulations in varied native ecosystems and agroecosystems — this and more information available on the Sedgwick website: http://nrs.ucop.edu/reserves/sedgwick/moreinfo.html.

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We’ll offer guided tours of researchers’ field studies at the Sedgwick, and we’ll have a barbecue, wine-tasting from several local vintners, live music, and hikes of several varying lengths and exertions. And we’ll offer activities for children: nature printing, t-shirt decoration, and games. So bring the family, make a Santa Barbara weekend of it!

Where to Find Reservation Information

Knowing that people must make plans in advance, we are telling you about this special celebration before we have nailed down all the details. Please set aside May 28 and 29, and any surrounding travel time, on your calendars! Then watch our web Coming Events page (www.geog.ucsb.edu/events/events.htm#30) for updates to learn how to sign up for activities and make reservations. And look for an invitation in your mailbox, which will have a reservation card enclosed.

Best wishes, Keith Clarke
In sub-Saharan Africa and Central America, too little or too much rainfall can cause famine. Scientists at UCSB and the U.S. Geological Survey (USGS) are working with researchers in these countries to monitor, anticipate, and mitigate the impact of flooding and drought.

Joel Michaelsen, professor of geography and a climatology specialist, and his team* have this year received $750,000 to increase their participation in a federal early warning program. The Famine Early Warning System Network, or FEWS NET, was originally developed in 1985 in response to massive starvation in Ethiopia. It pulls together data to predict shortages or excesses of rainfall.

It is primarily funded by the U.S. Agency for International Development, with partners in NASA, NOAA (National Oceanic and Atmospheric Administration), Chemonics International, and USGS. USGS’ Earth Resources Observation Systems Data Center works closely with the Geography Department on FEWS NET.

Michaelsen's team includes scientists in Washington, D.C., and several African and Central American countries. "Our objective is to try to locate and foresee areas where there will be food shortages," he said. "We're working on ways to track the rainy season as it develops. We're looking to see if there will be a shortfall or excess. Too little or too much are both problems."

He explained that there is a baseline of climate data for sub-Saharan Africa gleaned from 35 years of information that allows researchers to decide what is average.

Michaelsen and his team get up-to-date data on precipitation from NOAA and compare it to the historical data to see if rainfall is low or high. Dry conditions can lead to famine while wet conditions can lead to outbreaks of malaria and Rift Valley fever, which can take thousands of lives during wet years.

Researchers expect to improve the several-month advance forecasts. That data will then be cast in ways that are helpful to decision-makers in government and those guiding relief agencies.

Michaelsen said that UCSB researchers are working with field scientists to develop the computer tools that can be used in their own countries to track rainfall and project crop yields.

According to a United Nations world water development report, the average supply of water per person worldwide is expected to drop by a third in the next 20 years, with between 2 to 7 billion people facing water shortages by 2050.

The Geography Department has been involved in FEWS NET since 1997. Staff from USGS have studied at UCSB, and UCSB graduates have joined the USGS team. Now, the university will take on a larger and more direct scientific role in FEWS NET activities—statistical climatology, hydrology, GIS, remote sensing, and geostatistics.

A few of the objectives of the UCSB FEWS NET team are:

- Provide successful early warning of hydrologic extremes by issuing accurate reports on the FEWS NET site and interacting with decision-makers in Washington, Africa, and Central America.
- Develop improved methods for forecasting hydrologic extremes (flood and drought).
- Develop improved monitoring products to identify regions of high hydrologic risk.

Michaelsen said, "By extending our basic understanding of the factors controlling hydroclimatic extremes, building intellectual tools to anticipate, mitigate, and alleviate these extremes, and shortening the lag time between research and development and critical decisions, we will help FEWS NET countries cope with the vagaries of time-varying water supply and demand."

*The team of scientists consists of two of Joel Michaelsen’s graduate students, three Geography graduates, a coordinator based out of Washington, D.C., four African field scientists, and one Central American field scientist.

- U.S. team members: Saud Amer (Academic Coordinator), Jeremy Freund (grad student), Chris Funk (Assistant Researcher, PhD 2002), Greg Husak (grad student), and Diego Pedreros (BA 1997).

– Geography Newsletter Editor
CAN OCEANIC PLANKTON INFLUENCE CLIMATE CHANGE?
Suggestions from the Subtropical North Atlantic Ocean

David Siegel and Dierdre (DeDe) Toole have discovered a tight link between ultraviolet radiation fluxes in the open ocean and feedbacks in the global climate system, driven by microscopic phytoplankton cells. They speculate that this feedback may mitigate global climate changes that human practices are causing. Siegel is a professor of Geography at UCSB, and Toole recently graduated from the program (PhD 2003) and is now a post-doctoral fellow at the Woods Hole Oceanographic Institution, Massachusetts.

Phytoplankton are tiny plants — single-celled freely floating organisms — that inhabit the upper layers of any natural water body where there is enough light to support photosynthetic growth. These tiny organisms are the base of the ocean’s food web, and their production helps to regulate the global carbon cycle. Phytoplankton also contribute to the global elemental cycling of many other compounds with climate implications. This story describes one of these compounds: a volatile, organic sulfur gas — dimethyl sulfide (or DMS).

Since the early 1980s, scientists have suggested that marine emissions of DMS may play a key role in global climate feedback, linking phytoplankton and the Earth’s radiation budget. The DMS-climate feedback hypothesis theorizes that there is a cycle of specific transformations that link the ocean and its plant life to cloud optical properties, affecting solar radiation to the planet and, thus, climate. The cycle begins when the ocean gives off DMS to the lower atmosphere. In the air, DMS breaks down into a variety of sulfur compounds that act as cloud-condensing nuclei, which leads to increased cloudiness and, thereby, a reduction in the solar radiant energy reaching the Earth’s surface. With the reduction in light reaching the ocean, the rate at which the oceanic biological processes produce DMS, presumably, is also reduced. Cloudiness decreases and and more sunshine penetrates the upper ocean. Experimental and observational evidence has supported most of the steps of the DMS-climate feedback hypothesis. However, there has been no observational evidence illustrating how reduced solar inputs actually lead to the decreased ocean production of DMS. This is the breakthrough in Toole’s and Siegel’s research.

According to their research, it appears that phytoplankton produce organic sulfur compounds as a chemical defense from the damaging effects of ultraviolet (UV) radiation and other environmental stresses. At issue is the biological function of DMS and its precursor — dimethylsulfiniopropionate (DMSP). Recent laboratory work suggested that DMSP and DMS may act as an anti-oxidant within a phytoplankton cell, scavenging radical molecules and peroxides that can cause cellular damage, which is analogous to how vitamins C and E are used in our bodies. These laboratory experiments on single-species phytoplankton cultures suggest that environmental stresses regulate the production of DMSP and, thereby, DMS emissions. However, scientists have not seen evidence in the field of the validity of this anti-oxidant hypothesis.

Since 1992, Siegel’s group has been making observations of the underwater light field of the Sargasso Sea. This project, the Bermuda Bio-Optics Project (BBOP, www.icess.ucsb.edu/bbop/bbop.html), makes detailed observations of spectral radiation within the water column from a research vessel which samples a station approximately 75 kilometers (50 miles) southeast of the island of Bermuda every month. (See map.) BBOP researchers lower an underwater spectroradiometer many times during each cruise, profiling the upper 100 meters (328 feet) of the water column. The spectroradiometer measures the light penetrating downwards and and the light coming upwards in the UV and visible wavelengths. The Bermuda site was chosen, because it enables open ocean observations to be made regularly and there are many colleagues researching in the area with whom Siegel can collaborate and share data sets (including Geography Prof. Tommy Dickey, with his Bermuda Testbed Mooring project).

One of these collaborations is with Dr. John Dacey, a research scientist at the Woods Hole Oceanographic Institution. From 1992 to 1994, Dacey led a three-year study mea-

DMS and climate feedback loop.
suring oceanic DMSP and DMS concentrations in conjunction with BBOP and other programs off Bermuda. His group sampled water from the upper 140 meters (460 feet) of the ocean using remotely closing water bottles (or Niskin bottles) at specific depths. The water bottles were brought back to a laboratory, where the gases, particles, and dissolved constituents in each bottle were examined for their DMS and DMSP concentrations.

Dacey found that DMS concentrations were as much as 10 times higher in the summer than in the winter, without any peak in the springtime, which was expected from others’ research. Scientists studying DMS and phytoplankton since the mid-1980s thought the cause of DMS production by phytoplankton was probably because of population blooms in the plants, which occur in springtime, or massive grazing on phytoplankton by zooplankton, which also peaks in the springtime. Those other researchers had done their work in northern, rather than subtropical, waters, and DMS production there was greatest in the springtime. Dr. Dacey’s Sargasso Sea summer production peak was termed the “summer paradox.”

Siegel and Toole used Dacey’s data set and their own optical oceanographic observations to address the processes driving this paradox. They looked at salinity, sea surface temperature, mixing depth, bacterial abundance, primary and secondary production, zooplankton abundances, presence of various chemicals, short-wave visible light penetration (blue-green, blue, violet), and UV light. Far surpassing any other factor was UV light. It explained nearly 80% of the variability in DMS surface layer concentration — a phenomenal correlation for ocean biological parameters. Using recently published estimates of the photochemical processing of DMS concentrations from Toole’s dissertation, they assessed the rate by which biological processes produce DMS. They found that UV radiation explained almost 90% of the variability in the biological production of DMS. More importantly, they showed that summertime DMS production is enormous, and the entire upper layer’s DMS content will be replaced in just a few days.

This demonstrates a tight link between DMS production and solar fluxes – the missing field evidence of the DMS-climate feedback hypothesis.

Putting his research in perspective, Siegel explained, “The significance of this work is that it provides, for the first time, observational evidence showing that the DMS-antioxidant mechanism closes the DMS-climate feedback loop. The implications of this are huge. Now we know that phytoplankton respond dramatically to UV radiation stresses, and that this response is incredibly rapid — literally just days. This gives new impetus for atmospheric and oceanographic scientists to once again examine the DMS-climate feedback hypothesis. There are a multitude of possibilities for how DMS feedbacks can influence climate time scales (many years) and weather time scales (days to weeks) — and they may even play a role in mitigating the effects of global warming, making the Earth a more cloudy place.”

The DMS-climate feedback may also play out under possible global warming/change scenarios. Human activities have both decreased the atmosphere’s ozone layer and increased greenhouse gases, primarily due to emissions of fossil fuel carbon dioxide. This combination of the thinning of the Earth’s ozone shield and increasing greenhouse warming will lead to higher UV radiation fluxes found in the surface layers of the ocean. The work of Toole and Siegel implies that phytoplankton will produce DMS in response to the stresses induced by this increased UV radiation. This will in turn increase cloudiness and help mitigate the effects of global warming. At this time, it is unclear whether this potential feedback is operating and, if so, what its mitigating strength is. However, it does illustrate another of the multitude of ways which the Earth’s biosphere is capable of regulating its own existence.

For more information, read “Light-driven cycling of dimethylsulfide (DMS) in the Sargasso Sea: closing the loop” by D.A. Toole & D.A. Siegel, to be published in Geophysical Research Letters, expected in 2004.
Those currently in the Department have no doubt seen the six-foot wide, three-foot tall poster which chronicles the history of Geography at the University of California Santa Barbara. It is posted in the display case on the third floor of Ellison Hall, NW wing. The poster was created to be displayed in the "Hall of History" at the American Association of Geographers (AAG) 100th anniversary convention this month. After its sojourn to Philadelphia, the poster will return to the display case in Ellison Hall, since we celebrate our 30th anniversary this year.

We've printed several one-foot by two-foot "souvenir size" versions of the poster, which are available for purchase. In color, of course! If there is enough interest, we can print more. (The printer's requirement is 12 at a time, minimum.) Cost is $50, plus $5 for postage, should you need it mailed. Please make checks out to "UC Regents," and note in the check memo line (or somewhere clearly on the check) "For Geography History poster."

Along with the mailing address, be sure to send your email address and phone number, so we can let you know if you are being put on a wait list for a future run of posters. We expect interest in the posters will be generated at the AAG meeting this month, during our 30th anniversary celebration May 28 and 29, 2004, and perhaps at graduation time mid-June. So it is possible that we'll order additional printings at the end of March, beginning of June, and maybe even latter June.

THANK YOU, DONORS!

The following people and institutions donated funds to the Geography Department from November 2003 through February 2004.

**Geography Department Support**
- Mr. and Mrs. Philip R. Davila
- Mrs. Suzanne S. Johnson
- Dr. Thomas L. Logan
- Mr. Thiago C. Martins
- Mrs. Linda Rosa
- Dr. Douglas A. Stow

**Geography Textbook Fund (Undergrad)**
- Mr. Landon Wilson Romano

**Nicholas Bourdakis Memorial Fund (Undergrad)**
- Mr. and Mrs. Anthony Bourdakis

**Jack Estes Memorial Fund (Grad Students)**
- Mr. Frederick Mertz

**David Simonett Memorial Fund**
- (Grad Students)
- Mr. Yong Wang

**Jack and Laura Dangermond Fund**
- (Grad and Undergrad, GIS)
- Jack and Laura Dangermond

**Geography Research**
- The Andrew W. Mellon Foundation
In January 2004, Landon Romano, a 1999 graduate of the Geography Department, mailed a check to the Department, saying he wanted to establish a textbook scholarship fund for undergraduates in Geography. Through the year, he promised to send two more checks for $300; and his employer, in a gift-matching program, would send an additional $300. The total to start the fund would be $1,200. What a delightful and thoughtful surprise! Think of all the undergraduates who struggle financially to be at UCSB, and recall how crazily expensive textbooks are!

What would prompt Landon to be so generous? Susanna Baumgart, Geography artist, photographer, webmaster, and publisher, recently interviewed Landon via email.

Susanna: Why did you choose Geography?

Landon: Geography chose me. When I started college in 1995, my plan was to graduate with a degree in biology and attend medical school. After studying two years of the sciences and successfully completing all my pre-med requirements, I read a Human Geography textbook at the UCSB Bookstore and decided to investigate. I met with Tracy Ruge, the undergraduate advisor of the time, and she got me excited about Dr. Daniel Montello’s course. Dr. Montello and his course hooked me to Geography. The First Law of Geography made great sense to me. “Everything is related to everything, and closer things are more related.” [Prof. Waldo Tobler’s statement – Editor]

As I continued to explore the subject, I realized that I wanted to study how Geography affected people. Spatial Behavior and Urban Planning fascinated me. Geographic Information Systems was the “in” thing at the time and would give me employable skills. However, Dr. Helen Couclelis influenced my dedication and admiration for Geography the most. With Dr. Couclelis’ guidance, courses, and my independent research with her, I really developed my skills and talents as an undergrad. My hat is off to Dr. Couclelis, as she is a marvelous person.

S: What have you been busy with since graduating?

L: Busy, busy, busy. I have not stopped a day since I graduated. First I worked in Santa Barbara for several months. Then I was recruited by a Dot Com in the Bay Area. When I realized that I would rather be at a bigger and more robust company, I made a good move to VERITAS Software in July 2000. I continue to be gratefully and gainfully employed at VERITAS.

S: Has anything you learned or experienced in the Geography Department affected your life afterwards?

L: My skills in planning and GIS have been very influential. Knowledge of planning has helped me put together excellent business proposals, policies, procedures, and best practices. Geographic Information Systems has given me the ability to completely understand, rationalize, talk about, and thoroughly use any and all databases in our business environments.

Everything about VERITAS is related to Geography. Our business is international, and I have traveled through the United States and abroad for the company. The regions for which I am responsible are Europe, the Middle East, Africa, Pacific Asia, and the American continents.

My independent studies work with Geography professors affected my life the most. Through them, I was given the opportunity to think creatively about a problem and solve it.

S: What prompted you to start the textbook fund?

L: I want to give back to a place that gave to me more than the Department may ever realize. I found myself at the UCSB Department of Geography, and the Department helped me grow.

S: Where do you live now? Are you married? What do you enjoy doing outside of work?

L: I own a condo in Santa Clara, California, with my partner, Greg Self, and our two Pugs. We show Pugs as a hobby. The dogs are named Champion Pocket’s Has a Trooper and Monstruck’s Blue Belle. We plan to breed them when Belle is a champion.

Besides Pugs, our other favorite hobby is travel. In 1999, I was in England, Scotland, and France for a month. In 2000, I was in Italy for two weeks. In 2001, we went to Vancouver, BC for a week. In 2002, I was in Germany and Austria with a friend. In 2003, we went to Spain and Portugal for two weeks. I just returned from a business trip to the United Kingdom, and in May we are going to Italy and Greece for two weeks. We are very busy people!
Alumni News and Change-of-Address Form

We would love to hear news of your life and appreciate your taking the time to update us with addresses and phone numbers. If you prefer, submit the information on-line at: www.geog.ucsb.edu/people/alumnus_update_form.htm.

NAME: First ___________________ Middle initial ____ Last name ____________________________

Last name when graduated, if different from above ____________________________

DEGREE(S): Please circle the degree(s) you earned in Geography at UCSB and write the year received.

BA Year ______ BS Year ______ MA Year ______ PhD Year ______

CONTACT NUMBERS: Do we have your current contact information? If we need to update our records or if you're not sure whether we have your latest numbers, please fill in the information.

Street address or P.O. box ____________________________

City ____________________________

State or Province ____________________________

Zip code (or postal code) ____________________________

Country, if not United States ____________________________

Phone number ____________________________

Email address ____________________________

NEWS: Please share brief news of a personal or professional nature – marriage, births, jobs, further education, career changes, publications, awards, etc.

Mail to:

Newsletter Editor
Geography Department
University of California
Santa Barbara, CA 93106-4060

Thank you very much!
Robert Sternthall (BA 1971)
I taught high school geography in New Zealand from 1974-1981. Upon returning to Santa Barbara, I was in the insurance business and taught introductory Geography part-time at Westmont College until 2003. I now teach at Lahainaluna High School on Maui, where I am involved in the Academy of Travel and Tourism at the school. I have been blessed with a great marriage of 32 years with my best friend and love of my life, Cassie. Our grown children, Mesha and Sam also live on Maui.

Darlene Harper Bierig (BA 1976)
I graduated with a double major in Environmental Studies and Geography in 1976 and did my graduate work in City & Regional Planning at UC Berkeley. After graduate school, I was a planning consultant for approximately ten years before moving back to Santa Barbara. My husband (Bob Bierig, class of ‘74) and I own Canessa Capital, which is a real estate investment and development company located in Montecito. I served as a member of the local School Board for five years, and I’m involved with a variety of philanthropies in Santa Barbara. We have two children (Ian and Nicole) who both attend UC Berkeley.

Eve R. Diamond (BA 1977)
At the time I graduated with BAs in Geography and Environmental Studies, my dream was a career in land use planning. Instead, in the subsequent 25 years, I’ve been a graphic designer (thanks to cartography), an artists’ rep., edited technical journals, and spent over 10 years in the meetings and hospitality industry. In 1998, I met my future husband Tom, and in 2001 we moved to Nevada County, CA. Now I am an analyst for the Board of Supervisors, and much of my work is spent on land use planning and growth issues. I love this job!

Marjorie (Marji) A. Fox (BA 1982)
After graduation I worked in Environmental Health and Safety at Santa Barbara Research for five years, then married and gave birth to four beautiful children between 1986 and 1991. I’ve worked since the 1990s as the Office Manager for my veterinarian. I haven’t ever used my geography degree for anything except playing Jeopardy and doing crossword puzzles, but I do have four extremely geography-savvy teenagers, for which I take at least partial credit!!

The years I spent at UCSB count among the best in my life, especially our Field Studies class and the week on Santa Cruz Island. I hope at least one of my spawn ends up at UCSB someday!

P.S. My youngest visited UCSB recently (Marine Biology) on a field trip for science class. The kids get a big kick out of the fact that “in the olden days” we had computers as big as rooms and had to use those punch cards, turn them

See Alumni News, continued on next page
into the computer center, and later get those big printouts on the green striped paper! They just can’t visualize life before PCs and cell phones!

Lori Kari (BA 1983)
I am currently practicing in Santa Barbara as an Architect.

Daniel Goodwin (BA 1985)
After graduating from UCSB, I did some graduate coursework in desertification at CSUN. My graduate career ended when I took a real job at the Automobile Club of Southern California as a Field Mapping Reporter, traveling the Southwest and revising and plotting road maps. This entailed much back road travel in a 4x4 vehicle using a compass and topo maps – before GPS! Some of the highlights were working on the “Indian Country Map” and the “Baja California Map” as well as other Southern California County and area maps like Death Valley and Eastern Sierra. My geography background made the traveling very interesting and rewarding.

After all the traveling, I began my career as an Environmental Scientist for various environmental engineering and remediation firms in California and New Mexico. My work included Phase I Site Assessment Reports, soil and groundwater testing and remediation, etc. Projects included vapor extraction remediation and groundwater clean-ups at underground storage tank (UST) sites, PCB investigation along a natural gas pipeline, and an acid leachate investigation at a copper mine in New Mexico. Presently I work at Quallion as an Environmental Health and Safety Manager, where I am responsible for environmental and OSHA issues including safety training. Quallion is a maker of advanced lithium ion/lithium batteries used in medical and aerospace applications.

I live in Southern California, and my interests include traveling, camping, hiking, mountain biking, Blues and Jazz music, Jeeps, gardening, history of the west, ghost towns, geology, exploring the southwest, and maps, of course.

Valerie Dougherty (BA 1989)
I’m now employed by Cellular and Molecular Pharmacology, UC San Francisco.

Dennis Gibbs (BA 1989)
Although my news update was in the November 2003 newsletter, I didn’t mention what a great education I received from the UCSB Geography Department and how it has helped me succeed since. Great job on the newsletter, too.

Maia Morrison Mook (BA 1989)
After graduating from UCSB, I earned an MA in Radio and Television at San Francisco State University (SFSU) in 1992. I taught Communication classes at Santa Barbara City College for 5-1/2 years before joining the S.B. Humane Society, where I am currently the Humane Educator/Volunteer Coordinator.

In January 1996, I married Alex Mook, whom I met at SFSU and who now works at UCSB as a Computer Network Technologist. In January 2003, we had a baby girl, Shannon Francesca.

Joe Shandley (BA 1990)
After graduating from UCSB in 1990, I attended graduate school in Geography at San Diego State University, studying under Dr. Janet Franklin and Dr. Doug Stow. After graduating in 1993, I spent two years at a small remote sensing company that specializes in oceanographic and near-shore applications. Currently I’m doing photogrammetric applications for a major U.S. Defense contractor.

James Clarke (BA 1996)
After graduation, I landed a position with a city government on Galveston Bay, Texas. Three years later, I was hired by a consulting firm as their ArcINFO representative. In 2000, I was offered a position at Duke Energy Field Services in Houston. Since 1997, I have been the Chairman of the GIS Curriculum Committee at San Jacinto College as well as a founding member of the Houston Area Arc Users Group.

So far I have run into a four Gauchos here in Texas — one teacher, and three fellow Geographers like myself. I have made it back to UCSB only once since graduation, but, even after a few years of absence, it felt like visiting an old dear friend. I hope to make it back there in the next few years ... hopefully with my family in tow.

Joseph Silver (BA 2001)
I completed a Masters degree at the University of Hawaii, Manoa, in Geography/Cartography. I have decided to stay in Hawaii and work as a GIS/Cartographer for Belt Collins. It is a private landscape architecture, urban planning, engineering, and environmental firm that works within the Pacific.

Minnie Wong (BA 2002)
Just started the Geography Master's program at University of Maryland–College Park, we'll see how it goes!
**Geography Awareness Week:**

**ARE YOU STRONG IN GEOGRAPHY?**

Few Americans are. Not only do we not know where other states are located in our country, or other countries located on the globe, we are generally ignorant about what geographers study. Embarrassingly, Europeans routinely know more about American geography than we do!

Recognizing that our nation would benefit with greater awareness of geography, in 1987 then-President Ronald Reagan signed into law that the third week of November would be Geography Awareness Week. It is sponsored by the National Geographic Society and has the mission of promoting geographic literacy in schools, communities, and organizations. The prime focus is on the education of children.

The Geography Department at University of California Santa Barbara has participated in Geography Awareness Week since 1988. Faculty, graduate students, and staff have given presentations about geography to area schools, reaching approximately 250 students each year. Presentation topics have included the geography of Santa Barbara County, the basics of remote sensing, clouds and global warming, maps and map-reading, and weather and seasons in Santa Barbara.

In November 2003, twenty-one people from the UCSB Geography Department visited schools in southern Santa Barbara County and gave presentations: seven professors, 12 graduate students, the staff artist, and a full-time researcher. Stacy Rebich, a graduate student, coordinated the effort, matching teachers' subject requests with presenters' offerings. Topics included:

- How people lose and find their way
- Airphoto/satellite image interpretation
- Brazil: land of many habitats and people
- Why the ocean is like a layer cake
- Drinking water
- Wolves in Yellowstone
- Tropical rainforests
- Fires in Southern California
- Global warming
- Map-making

Eight presentations were given to lower elementary grade classes, 11 to upper elementary, three to junior high, and two to high school.

The participants really enjoyed the experience. Alex Keuper reported: “The two classes were very active and their enthusiasm for the content was quite refreshing. I had a great time with them.” Chris Still said: “It was a total blast, and the kids were much more interactive than UCSB undergraduates.” Laurel Suter’s testimony should encourage those who haven’t participated to do so next year: “The teacher was appreciative, the kids seemed to enjoy it. It was the first time I’ve ever done something like that, and I’m glad to have had the experience.”

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**TWO GRADUATE STUDENT PRESENTERS**

Report from Julie Dillemuth

For Geography Awareness Week, I visited a class of fourth and fifth graders at Isla Vista Elementary. We explored some of the different perspectives that geographers utilize in studying the world: aerial photographs, satellite images, photographs from space, and 3-dimensional images, complete with 3-D glasses. The first aerial photograph, of Isla Vista, was met with a few tentative guesses of what we were viewing. As soon as the students figured out it was their own community, they located the school and classroom to a chorus of ohhhhhh’s and several exclamations of There’s my house!

The 3-D images were also a big hit. Besides being really cool to look at, they demonstrated the value of depth perspective for such abilities as distinguishing smoke on the ground from clouds in the atmosphere. We also saw images of things we can’t normally see with our regular vision, including the hot spots of a volcano in the thermal infrared part of the spectrum. The students proved to be very good (and creative!) photo interpreters, gaining a greater awareness of the different ways we can study our world and of the value of approaching a problem from a variety of perspectives.

*(Please see image of six participants on facing page, bottom.)*

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**“GAW” PRESENTATIONS**

Report from Andy Ballentine

I went to Kathy Gallo’s fourth grade class at Mountain View School. Although there was a substitute teacher, the kids were great and everything went well. I did my presentation on habitats and landforms in California, since they had just studied the landforms of California.

I started by going over the different landforms on the wall map that they had and also discussed the climate in different parts of California. Then I described how the combination of landforms and climate generally controls habitat. I showed them slides of habitats in California, so they could see what different places looked like.

The main activity was taking pictures of 10 different habitats and putting them on the map where they belonged. I then “turned” each kid into an animal by giving them a picture of an animal typical of one of the habitats. They got to guess where they lived and put the animal with the habitat.

Finally, I showed them some stuffed animals from the Santa Barbara Museum of Natural History’s Nature Collections. They particularly enjoyed feeling the otter fur, a patch of which was on the outside of the showcase that held the otter. I received a lovely packet of thank you notes.
Wish you were here now?!