

Pacific Division
American Association for the Advancement of Science
NEWSLETTER

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April 1, 2003

**84th ANNUAL MEETING OF THE PACIFIC DIVISION AT
SAN FRANCISCO STATE UNIVERSITY AND THE
CALIFORNIA ACADEMY OF SCIENCES**
June 15–19, 2003
UPDATE

Cesar Chavez Student Center, San Francisco State University

**2003 ANNUAL MEETING OF THE
AAAS PACIFIC DIVISION**

The AAAS Pacific Division and its affiliated societies and sections will hold their 84th annual meeting on the campus of San Francisco State University and also at the California Academy of Sciences, helping to commemorate the 150th anniversary of the Academy. Due to the unique nature of this meeting, the Division's Program and Special Events

Committee is making a special effort to design a program of exceptional scientific merit, especially as it relates to the activities of natural history museums, and, in particular, the California Academy of Sciences.

All scientists and graduate and undergraduate students are invited to present research papers of their research results either orally or as posters. All registrants for the meeting may attend the scientific sessions as well as participate in the many other activities. Some activities, notably field trips and selected workshops, require advance registration and payment

**Dael Lee Wolfle
1906-2002**

It is with great sadness that we report the passing of Dael Wolfle, past Executive Director of AAAS, past President of AAAS, Pacific Division, and a true gentleman. More information may be found on the Pacific Division website, pacific.aaas.org

Photograph courtesy Alan E. Leviton.

of additional fees. Dr. Nina Jablonski, Department of Anthropology, California Academy of Sciences, and Dr. Alan Leviton, Department of Herpetology, California Academy of Sciences, are co-chairs of this year's annual meeting.

This *Newsletter* contains an updated preliminary description of the scientific program, the call for papers, directions for preparation of abstracts, and information about preregistration, housing, transportation, special events, and field trips.

The following societies and sections will sponsor sessions at the meetings. The names and addresses of session chairs are listed beginning on page 15.

- Western Society of Soil Science**
- Agriculture and Horticultural Sciences Section**
- Anthropology and Archaeology Section**
- Atmospheric and Oceanographic Sciences Section**
- Biological Sciences Section**
- Chemistry Section**
- Computer and Information Sciences Section**
- Earth Sciences Section**
- Ecology and Environmental Sciences Section**
- Education Section**
- Engineering and Industrial Sciences Section**
- Health Sciences Section**
- History and Philosophy of Science Section**
- Psychology Section**
- Social, Economic and Political Sciences Section**

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**SAN FRANCISCO STATE UNIVERSITY
AND SAN FRANCISCO**

The forerunner of San Francisco State University, the California State Normal School, was founded in 1862 in San Francisco. Two subsequent name changes and three changes of location within the city brought the institution to its present 130-acre campus in southwest San Francisco in 1954. It received University status in 1972.

San Francisco State University is part of the 21-campus California State University—the largest system of public higher education in the world—and is a multipurpose coeducational institution with more than 24,000 students and 1600 faculty members. More than 75 percent of the students come from within the State of California, three-fourths of whom are from the San Francisco Bay Area, and 13 percent from other counties. Through its eight schools, Behavioral and Social Sciences, Business, Creative Arts, Education, Ethnic Studies, Health and Physical Education, Humanities, and Science, the University offers undergraduate and graduate instruction for professional and occupational goals as well as liberal arts education. Bachelor's degrees are offered in 89 academic areas, master's degrees in 73 areas, and doctorate degrees in special education, the latter in cooperation with the University of California, Berkeley.

CALIFORNIA ACADEMY OF SCIENCES

Founded in 1853 to survey and study the vast resources of California and beyond, the California Academy of Sciences is the oldest scientific institution in the West. Originally named the California Academy of Natural Sciences (until 1868 when the present name was adopted), the Academy consisted of a group of naturalists who, spurred by their concern over the natural environment during the California gold rush, met weekly in an office on Clay Street. Through this forum, scientific papers were presented on topics of interest to a growing membership of San Francisco citizens. As the collection of specimens from the field grew in number and scope, the important scientific work of systematics began.

As the collections increased, the Academy needed to find a place to house and display them. After two or three temporary locations, James Lick bequeathed a six-story building on Market Street between 4th and 5th streets. For 15 years visitors streamed in to see the displays of mammals, birds, plants, skeletons, insects and natural “curiosities” such as the extinct Dodo and woolly mammoth.

The earthquake and fire of 1906 left the museum building in charred ruins and destroyed virtually all of its holdings. But even as the city burned, a two-year Academy expedition to the Galapagos Islands was gathering the material that would form the nucleus of the institution’s new collections.

The citizens of San Francisco, through a ballot measure, agreed that the Academy of Sciences should

(continued on p. 4, left column)

The focal point of the campus is the Student Union. With its two dramatic leaning pyramids, it is a campus landmark. The Union houses a number of restaurants, a pub-coffee shop, meeting rooms, and a game center. The major academic buildings cluster around the Union, on the edges of a grassy quadrangle. The Creative Arts complex is the largest facility of its kind in San Francisco. It contains four theaters, a concert hall, music and drama rehearsal areas, and one of the largest television and radio production facilities in northern California. The Science complex features a modern planetarium, marine biology research facilities, herbarium, vertebrate museum, bioacoustic laboratory, greenhouses, extensively equipped physics and chemistry laboratories, and computer science facilities.

The University Library houses more than 2-1/2 million titles and subscribes to more than 4000 periodicals and scholarly journals. It also houses the Frank V. de Bellis Collection of Italian culture. The Sutro Library, with its special collections of historical materials, is situated in a modern building on the north edge of campus.

In addition to the Romberg and Tiburon Centers, the University has two other off-campus field centers for special study; Moss Landing Marine Laboratory, on Monterey Bay, 100 miles south of San Francisco, and the Sierra Nevada Field Campus in the foothills of the Sierra Nevada. The San Francisco State University downtown center, located in the heart of the city, offers classes for personal and professional development, as well as meeting and conference facilities.

San Francisco State University is a multipurpose institution of higher education located in a large, diverse urban setting. Excellence in teaching is the University’s primary mission and distinguishing feature, although commitments to research and service to the community are high priorities.

The University enjoys the advantage of being in one of the most exciting and cosmopolitan cities in the world. It is just minutes away from the San Francisco Zoo, Ocean Beach and Cliff House, Golden Gate Park, California Academy of Sciences and Steinhart Aquarium, De Young Museum of Fine Arts, Strybing Arboretum, Japanese Tea Garden, Exploratorium, and many other nearby museums. It is also less than 20 minutes away from downtown San Francisco, with its numerous fine shops, Fisherman’s Wharf, Telegraph Hill (and its spectacular view of the Bay and the Golden Gate Bridge), and numerous other points of interest.

The San Francisco climate during June should be mild, with temperatures not much above 73°F (23°C) or below 50°F (10°C). Fog is always a possibility and participants should be prepared for cool as well as warm weather.

REGISTRATION

All persons planning to attend the meeting should preregister using the form on page 19. Advance registration

(continued from p. 3, left column)

rebuild in Golden Gate Park, across the Music Concourse from the M.H. DeYoung Museum and Japanese Tea Garden. In 1916 the first building was opened, the North American Hall of Birds and Mammals, which was renovated in 1988 as Wild California. In chronological order the next buildings were the Steinhart Aquarium (1923), Simson African Hall (1934), Morrison Planetarium (1952), Cowell Hall (1969), Wattis Hall (1976), the Fish Roundabout (1977), and Life Through Time (1990).

As the public museum grew, so did the research collections, which are considered national treasures, veritable lending libraries of specimens from the natural world that are available for scientific study. The Academy has eight scientific research departments in the fields of anthropology, aquatic biology, botany, entomology, herpetology, ichthyology, invertebrate zoology and geology, and ornithology and mammalogy.

Today, as one of the 10 largest natural history museums in the world, the Academy brings the message of research to nearly one and a half million visitors each year. Like its sister institutions, the Smithsonian Institution, the American Museum of Natural History in New York and the Field Museum in Chicago, the California Academy of Sciences is devoted to the study, display and interpretation of scientific collections which inspire people of all ages to explore the rich variety of life on Earth.

Editor's note: The above information was excerpted and modified from the California Academy of Sciences website, <http://www.calacademy.org/geninfo/mission.html>.



fees are \$60 for professionals, \$40 for retirees, and \$30 for students and spouses of registrants. K-12 and community college teachers are encouraged to attend the meeting for a reduced professional registration fee of \$40. Advance one-day preregistration is \$40. After May 23 higher registration fees will be charged: professional, \$80; K-12, community college teachers and retirees, \$55; and students and participating spouses, \$45. One-day registration is available on-site for \$55. If you attend more than one day, you must pay the full registration fee.

About field trips: Preregistration for all field trips is required because of limited seating in the vans and the need to inform some destinations of numbers of people arriving. If you are interested in one or more of the excursions, it is recommended that you register early. At least one member of a family group requesting field trip reservations must be a paid meeting registrant.

Please send your Advance Registration form and accompanying payment to **AAASPD Meetings, Department of Biology, Southern Oregon University, Ashland, OR 97520.**

ACCOMMODATIONS AND FOOD SERVICE

Residence Halls: San Francisco State University is offering an especially attractive rate for housing and food service. For those who choose to stay four nights, June 15–18, the cost is \$175 per person, double occupancy, and \$267 per person, single occupancy. This includes 10 meals; dinner Sunday, breakfast, lunch and dinner Monday, breakfast and lunch Tuesday, breakfast, lunch and dinner Wednesday, and breakfast Thursday. Tuesday evening is reserved for the Division Dinner at the California Academy. The \$25 cost for this must be paid separately (see Advance Registration form). For those wishing to stay for five nights, June 15–19, the cost is \$213 per person, double occupancy, and \$328 per person, single occupancy. This five-night package includes all of the meals in the four-night package with the addition of dinner on Thursday and breakfast on Friday.

The rooms are clean and two persons to a room (except for singles), but they are dormitory style with shared bathroom facilities on each floor. Each guest will receive a blanket, pillow, mattress pad, bed linen (two sheets and a pillow case), two bath towels, soap and a cup. You are expected to make your own bed. A linen exchange is provided (ask for location at Dorm Registration Desk) for towels to be replaced every third day. Daily maid service is not provided. Check-in time is 3 pm on Sunday and check-out by 11 am on Thursday or Friday, depending on your housing package. **No smoking is allowed in the facilities, including the bedrooms.**

Residence Hall Check-in: Room assignments may be picked up at the front desk of Mary Ward Hall. The desk is staffed 24 hours a day. Should you need to contact the

very reasonable rate of \$69/night (+ taxes and fees) for rooms with either a king bed (up to two persons) or two double beds (up to four persons). The drive from the La Quinta Inn to San Francisco State University is about 12 - 15 minutes. Call the property direct at **650-583-2223** and identify yourself as part of the **AAAS Pacific Division Meeting** in order to receive this rate. They offer three-star quality rooms and complementary breakfast with hot entrees.

TRANSPORTATION AND CAMPUS PARKING

San Francisco is served by all major airlines and many commuter airlines through San Francisco and Oakland International Airports, by Amtrak (through Oakland), by Greyhound Bus Line or by automobile via U.S. 101 and Interstate Highway 280 from the south. Mary Ward Hall is located at 800 Font Boulevard.

Mary Ward Hall, as seen from Font Boulevard.

residence hall staff, call 415-406-5703. Advance payment, in full, is required. *Loss of room key or meal card is subject to a \$50 fee.*

Early Arrivals, Late Departures: The University has made available a block of rooms for early arrivals (nights of Friday, June 13, and/or Saturday, June 14) and late departures (nights of Friday, June 20, and/or Saturday, June 21). The cost for these rooms is \$23 per person per night, double, and \$46 per person per night, single, plus food and other fees. In order to reserve a room for early arrival and/or late departure, contact Dania Russell, Assistant Director of Conference and Residential Services at SFSU, by e-mail: *dhowell@sfsu.edu*, phone 415-338-7135, or by fax: 415-405-0393 with your request. You must make these arrangements directly with SFSU no later than May 15, 2003.

On-Campus Dining: For those staying on-campus, dining facilities are located at the City Eats dining facility, which is close to Mary Ward Hall. The cafeteria-style service presents a large variety of individual choices. *Ala carte* service is available in the Cesar Chavez Student Center.

There are many restaurants in San Francisco and its environs. In the Stonestown Galleria (Mall), located adjacent to the University, there are at least a dozen dining establishments, ranging from fast-food to full-service.

Housing reservation forms (see page 18) and payment to "AAAS, Pacific Division" should be sent to AAAS Pacific Division, Department of Biology, Southern Oregon University, Ashland, OR 97520. DO NOT SEND YOUR MAIN HOUSING REQUEST TO THE UNIVERSITY. Please indicate on your Housing Reservation Form if you have a physical disability that requires special arrangements, such as ground floor accommodations, wheelchair access to buildings, transportation around campus, or a handicapped parking permit.

Local off-campus accommodations: There are many hotels and motels in the San Francisco area, though few are near the university and none within walking distance. The Pacific Division has entered into an agreement with **La Quinta Inn-San Francisco Airport** to provide rooms at the

UNITED AIRLINES SPECIAL MEETING OFFER

Save up to 15% on airfare for travel on United to San Francisco between June 11–22, 2003.
You or your travel agent call UAL's Specialized Meeting Reservation Center at **1-800-521-4041**
8:00 am to 10:00 pm Eastern Time
Refer to **Meeting ID Number 516BD**.
Call at least 30 days in advance for best discount.

By Car. From the North: Take Highway 101 South and cross the Golden Gate Bridge. Take 19th Avenue/Highway 1 exit. Follow 19th Avenue south to campus at Holloway Avenue. For parking, turn right onto Holloway Avenue and then bear right onto Font Blvd. Very limited on-street parking is available on Font. For the parking garage, continue on Font to Lake Merced Blvd. Turn right onto Lake Merced and then right onto State Drive, which leads to campus parking garage, Lot 20. Purchase a parking permit from one of the vending machines in the parking structure.

From the South: Take I-280 North, exit at 19th Avenue. Take Junipero Serra Boulevard to Holloway Avenue, turn left on Holloway Avenue to campus at 19th Avenue. For parking, continue across 19th Avenue on Holloway Avenue and then bear right onto Font Blvd. Very limited on-street parking is available on Font. For the parking garage, continue on Font to Lake Merced Blvd. Turn right onto Lake Merced and then right onto State Drive, which leads to campus parking garage, Lot 20. Purchase a parking permit from one of the vending machines in the parking structure.

From the East: Take I-80 West across the Bay Bridge to Highway 101 South. Take 101 South to I-280 toward Daly City. Take the *second* Mission St. exit, turning right onto

Sagamore Street, to Brotherhood Way, to Junipero Serra Boulevard North. Take Junipero Serra Boulevard to Holloway Avenue. Turn left on Holloway Avenue to campus at 19th Avenue. To get directly to the parking garage, stay on Brotherhood Way and turn right onto Lake Merced Blvd. Then turn right at State Drive (the second stoplight), which takes you to the entrance to the public parking garage, Lot 20. Purchase a parking permit from one of the vending machines in the parking structure.

By BART. Take any San Francisco-bound BART train to the Daly City BART station. MUNI and SamTrans have bus service from the Daly City BART station. MUNI's 28 line and SamTrans' 3B line serve the campus 7 days a week. Obtain a transfer (good for one ride to and from BART) from the machine in the lobby before exiting the station. Exit at the 19th Ave. and Holloway Ave. stop.

Plants growing on top of underground Student Health Center on the San Francisco State University campus.

By MUNI. From downtown San Francisco, take the MUNI Metro M–Oceanview streetcar.

The campus is also served by the following MUNI bus lines:

M–Oceanview- streetcar to downtown and Balboa Park Station.

17–Park Merced to West Portal Station.

18–46th Avenue/Zoo, Sunset and Richmond Districts, Palace of the Legion of Honor.

26–Valencia to Ocean View, Balboa Park BART station, Glen Park Station, Mission District to 5th and Mission.

28–19th Avenue to Daly City BART station, Sunset and Richmond Districts, Golden Gate Bridge, Fort Mason. (28L-limited service Monday-Friday only).

29–Sunset to Ingleside, Excelsior, Bayview districts and Candlestick Park.

Parking is limited to approximately 2,500 spaces in the General Parking Garage at the west side of campus (Lot 20). Entry is from Lake Merced Boulevard, with a \$5/day fee. Access to all other parking areas closer to the central campus is by permit only. Parking is enforced 24 hours a day, seven days a week. After 5 pm Friday through 7 am Monday, all

valid daily permits are valid in any SFSU parking lot. Handicap spaces require a valid SFSU permit **in addition** to a valid handicap placard or handicap/disabled plate. There is a 20 minute time limit while parked in a yellow zone. Parking is not allowed in a red zone. Unrestricted street parking is available along 19th Avenue and Junipero Serra Boulevard on the east side of the campus. The adjacent Stonestown shopping area, to the north of campus, provides short-term parking for customers.

Assistance with local transportation schedules and information will be available at the Registration Center and at the Student Union Information desk.

REGISTRATION CENTER

The Registration Center will be in Creative Arts 153 (formerly numbered 224), which is adjacent to McKenna Auditorium (see campus map, p. 23). It will be open the following hours: Sunday, 2 - 5 pm; Monday, 8 am - 5 pm; Tuesday, 8 am - 4 pm; Wednesday, 8 am - 2 pm.

MEETING ROOMS

This year's technical sessions will meet in various rooms in the Creative Arts building at San Francisco State University. Meeting rooms will be equipped with a 35mm slide projector and an overhead projector. Speakers requiring other specialized equipment must make their requests on the e-mail abstract submission form. Specialized equipment, such as VHS/TV, will be provided if available. Computers and computer-projection equipment rental incur additional costs, which are the responsibility of the speaker, and subject to equipment availability. A Speaker's Preview Room, with basic projection equipment, will be open during the meeting. The meeting rooms and presentation time schedule will be published in the "Program with Abstracts" issue of the *Proceedings* (vol. 22, part 1), which will be provided to those who have registered for the meetings. Speakers will receive final confirmation of the time and place of their presentation via e-mail at least two weeks prior to the meeting.

POSTER SESSIONS

Posters will be assigned a display space of 40" X 60" (1 m X 1.5 m). If you need more space, please contact the Division office by e-mail: aaaspd@sou.edu or telephone: 541-552-6869 to discuss your needs *no later than May 12, 2003*. Posters will be grouped by discipline and subject matter. Each presenter will be given at least two hours for poster display although more time may be available. Presenters should set up their posters no less than 15 minutes before the beginning of their presentation session and are expected to be available to discuss their work during the time their poster

is on display (generally a 3-hour period in the morning or afternoon). Posters should be removed within 15 minutes of the close of the session. Student posters will be judged for awards of excellence. Students must be present during the judging of posters.

Please refer to page 16, "Call for Papers," for instructions to submit an abstract for a poster presentation.

With the permission of Dr. Carol Waite Conner and the Geological Society of America, the Pacific Division has reprinted Dr. Conner's article, "The Poster Session: A Guide for Preparation." It can be found on the Division's website (pacific.aaas.org; from the meetings menu click on "Poster Preparation," listed in the left-hand column).

SPECIAL EVENTS

Sunday Evening Illustrated Lecture. *Dr. Thomas Daniel* (Botany Department, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118) will present the Sunday evening lecture, "Botanical Heroes and the Flora of San Francisco." It is scheduled for 7:30 pm in the Coit Lounge, Seven Hills Center (see map on page 23).

Sunday Evening Welcome Wagon and Cracker Barrel Mixer, hosted by the Pacific Division and its affiliated societies and sections. All registrants and their families are invited to enjoy the conviviality of this social on June 15 from 8:00 to 10:00 pm in the Nob Hill Room, Seven Hills Center (see map on page 23). A selection of beer, soft drinks, chips and pretzels, and good conversation will be available.

Monday Noon Lecture. The Monday noon lecture will feature *Dr. Fred C.C. Peng* (Neurological Institute, Department of Neurosurgery, Veterans General Hospital-Taipei, Taipei, Taiwan 11217) speaking on "Memory and Cognition: What are They?" Scheduled for 12:15 pm in the Studio Theatre, Creative Arts Complex (see map on page 23).

Monday Evening Presidential Lecture. *Dr. John J. Carroll* (Atmospheric Sciences Section, Department of Air, Land and Water Resources, University of California, Davis, CA 95616), President of the Pacific Division, will give the annual Presidential Lecture, starting at 7:00 pm in the Nob Hill Room, Seven Hills Center (see map on page 23).

Monday Evening President's Reception. San Francisco State University President *Dr. Robert A. Corrigan* will welcome conferees at an informal hosted reception in the Seven Hills Center (see map on page 23), 8:15 to 10:00 pm. All participants and their families are invited to enjoy this relaxed occasion. Nonregistered family members are welcome, but must be accompanied by a registrant. Please wear your registration badge.

Tuesday Noon Lecture. *Mr. Henry Oman* (Consulting Engineer, ret., Boeing Aircraft), "Generating and Distributing Electric Power in a New Political Environment." Scheduled

Diorama in African Hall at the California Academy of Sciences.

for 12:15 pm in the Studio Theatre, Creative Arts Complex (see map on page 23).

Tuesday Afternoon Visit to the California Academy of Sciences. Starting at 4:00 pm, paid registrants and family members will be admitted to the California Academy of Sciences at no charge (see map on page 23 for driving instructions to the Academy from SFSU). Plan on enjoying the displays of the Academy in advance of listening to the series of mini-talks on the past, present and future of the Academy, as well as the Reception and Division Dinner later that evening.

Tuesday Evening Lecture: *Dr. Jill Tarter* (Bernard M. Oliver Chair for SETI, SETI Institute). Starting at 5:30 pm in the Morrison Auditorium, California Academy of Sciences, Dr. Tarter will present, "SETI: Finding Habitable Worlds with the Help of the Inhabitants."

Tuesday Evening Reception and Awards Banquet. The no-host Divisional Dinner will be held Tuesday evening beginning at 7:30 pm in the African Hall at the California Academy. The cost is \$28 per person and you must sign up in advance (please see Advance Registration Form, p. 19). Students who are paid registrants and have presented a paper or poster are guests of the Division. Students should pick up their complementary ticket at the Registration Center by noon on Tuesday, June 17. Dinner will be preceded by a no-host cocktail reception in the 150th Anniversary Exhibit. Wine, beer and a variety of soft drinks will be available, starting about 6:30 pm.

Tuesday Evening Announcement of Winners of the Student Awards of Excellence. Following dinner, the Division will announce the names of the students selected to receive the Division's Laurence M. Klauber Award for Excellence (unrestricted), Geraldine K. Lindsay Award for Excellence in the Natural Sciences, J. Thomas Dutro, Jr. Award for Excellence in the Geosciences, Rita W. Peterson Award for Excellence in Science Teaching, the President's Award for Excellence (unrestricted), the Best Poster Award (for poster presentations only but otherwise unrestricted), and

the Robert I. Larus Travel Award, which provides for travel and other expenses for the awardee to attend the 2004 annual meeting of AAAS in Seattle, WA, February 12–17.

These awards are given to those students whose presentations are judged the most significant in the advancement or understanding of science. Eligible students must: (1) register for the meeting, (2) present the paper or poster, and (3) be the principal research investigator. Student presentations, oral and poster, are judged on their abstracts, content, style of delivery or presentation, and audiovisual aids and/or handouts (if used). The evaluation forms (oral and poster) are posted on the Division's website. Students who register for the meetings and present papers will be the Division's guests at the Division Dinner.

Business Meeting of the Council of the Pacific Division.

The Council of the AAAS, Pacific Division, will hold its annual business meeting and breakfast at 7:00 am on Wednesday, June 18, in the Seven Hills Center. The Council will elect officers, discuss programs for the 2004 and 2005 annual meetings, and transact other business as required by the Division's By-Laws.

AAASPD day at the California Academy of Sciences.

Paid meeting registrants will have an additional opportunity to visit the California Academy of Sciences at reduced or no cost. Days being considered are Sunday, June 15, and/or Thursday, June 19. Additional information will be posted on the AAASPD website as it becomes available.

PUBLIC LECTURES

Sunday, June 15, at 7:30 pm in the Coit Lounge, Seven Hills Center: "Botanical Heroes and the Flora of San Francisco," *Dr. Thomas Daniel* (Botany Department, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118).

Monday, June 16, at 12:15 pm in the Studio Theatre, Creative Arts Complex: "Memory and Cognition: What are They?" *Dr. Fred C.C. Peng* (Neurological Institute, Department of Neurosurgery, Veterans General Hospital–Taipai, Taipai, Taiwan 11217).

Monday, June 16, at 7:00 pm in the Nob Hill Room, Seven Hills Center: Annual Presidential Lecture, *Dr. John J. Carroll* (Atmospheric Sciences Section, Department of Air, Land and Water Resources, University of California, Davis, CA 95616), President of the Pacific Division.

Tuesday, June 17, at 12:15 pm in the Studio Theatre, Creative Arts Complex: "Generating and Distributing Electric Power in a New Political Environment," *Mr. Henry Oman* (Consulting Engineer, ret., Boeing Aircraft).

Tuesday, June 17, at 5:30 pm in the Morrison Auditorium, California Academy of Sciences: "SETI: Finding Habitable Worlds with the Help of the Inhabitants," *Dr. Jill Tartar* (Bernard M. Oliver Chair for SETI, SETI Institute, 2035 Landings Drive, Mountain View CA 94043).

Wednesday, June 18, at 12:15 pm in the Studio Theatre, Creative Arts Complex: Noon Lecture, TBA.

FIELD TRIPS

All field trips are open to meeting registrants and their families. Due to limited space, advance registration is required for all trips. Reservation and payment of field trip fee(s) are included on the Advance Registration Form.

A full refund will be granted if a trip is cancelled by the Division. If a registrant cancels via e-mail, phone, or written notification postmarked by May 12, 2003, the registrant will receive a refund of the paid fee(s) less a \$10 processing fee. If paid by credit card, an additional 3% will be deducted from the amount being refunded.

The following field trips are planned:

Sunday, June 15: 8:00 am–6:00 pm. (1) Monterey Bay Aquarium and Hopkins Marine Station. The field trip leaves from in front of Parking Structure #20 on the SFSU campus (refer to page 23 for map) at 8 a.m. Enjoy about a two hour drive down the Pacific Coast Highway, Highway 1, to the Hopkins Marine Center in Monterey, with a possible stop at Moss Landing for some birding. After a 1 1/2-hour tour of the marine center, participants will walk across the street to the Monterey Bay Aquarium. The aquarium has several places to eat. Lunch will be on your own, with the rest of the afternoon for individual exploring at the aquarium. The group will meet at 3:30 p.m. for the ride back to SFSU, this time following Highway 101 and a possible stop near Gilroy for some roadside geology. Be prepared for possibly foggy, chilly weather in Monterey. All walking will be on pavement but walking shoes are suggested. Binoculars are useful for possibly observing birds at Moss Landing and for observing marine life at the marine center. Everything is accessible to individuals with handicaps. Limited to 18 participants. Includes transportation and admission fee to the Aquarium. Note that lunch is on your own at the Aquarium. Fee: \$38.

Sunday, June 15: 9:00 am–5:00 pm. (2) Streetcar to Subduction—2003 Version. This trip meets in front of Parking

Structure #20 on the San Francisco State University campus (refer to page 23 for map). The trip will examine, in downtown San Francisco, critical rock outcrops that display various aspects of the general geology of the Bay Region, especially as it reflects the processes of plate tectonics acting on the western margin of North America. The trip will be an abridgement of the original concepts of Clyde Wahrhaftig who prepared, in the 1980s, a general guide for a series of trips by public transport. Limited to 18 participants. Includes transportation, field guide and sack lunch. Fee: \$35.

Thursday, June 19: 8:00 am–5:00 pm. (4) *Earthquakes, Faults, and Plate Interactions in the San Francisco Bay Region*. Leaves from in front of Parking Structure #20 on the SFSU campus (refer to page 23 for map) at 8 a.m. The field trip will transect an element of the 1906 earthquake system, examining geology along the boundaries of the Pacific and North American plates. Stopping along the way, we will travel north to Tomales Bay where we will see the effects of the plate offset and be able to straddle the line of contact between the two major plate boundaries. We will also visit the Earthquake Exhibit at the Pt. Reyes Ranger Station. There is no strenuous hiking on this trip. Dress for comfort. Limited to 18 participants. Includes transportation and box lunch. Fee: \$35.

INSTRUCTIONS FOR SUBMITTING PAPERS

Members of AAAS and its affiliated societies, students, teachers, and other scientists are encouraged to participate in the annual meeting and present papers. Those wishing to present a paper at one of the sessions should send a title and abstract (see page 16) to the program coordinator of the society or section at which you would like to present the paper (see page 15 for names and both postal and e-mail addresses.) Abstracts may be submitted electronically as attachments via e-mail or by regular mail. If submitting by mail, it will be helpful if the abstract is submitted on disc, preferably using Microsoft Word, to accompany the paper copy. An additional copy of all abstracts should be addressed to the Division's meetings office, again either electronically as an e-mail attachment, to aaaspd@sou.edu, or to the postal address: AAAS Pacific Division, Department of Biology, Southern Oregon University, Ashland, OR 97520.

STUDENT AWARDS FOR EXCELLENCE

The AAAS, Pacific Division, offers each affiliated society and section participating in the annual meeting an opportunity to recognize outstanding student participants through the presentation of certificates of merit and cash prizes of \$175 for first place and \$100 for second place. Several societies supplement these awards with their own cash prizes.

In 2003, seven Division-wide awards are available: Laurence M. Klauber Award for Excellence (unrestricted); Geraldine K. Lindsay Award for Excellence in the Natural Sciences; J. Thomas Dutro, Jr., Award for Excellence in the Geosciences; Presidents' Award for Excellence (unrestricted); Rita W. Peterson Award for Excellence in Science Education; Best Poster Award (for poster presentations only but otherwise unrestricted); and the AAAS-Robert I. Larus Travel Award, which provides for travel and other expenses for the awardee to attend the 2004 annual meeting of AAAS in Seattle WA, February 12–17, and present their paper as a poster.

The Klauber, Lindsay, Dutro, Presidents', Peterson, Best Poster, and Larus awards are given to those students whose presentations are judged the most significant in the advancement or understanding of science. To be eligible, a student must: (1) register for the meeting, (2) present the paper or poster, (3) be the principal research investigator. Student presentations, oral and poster, are judged on their abstracts, content, style of delivery or presentation, and audiovisual aids and/or handouts (if used). The evaluation forms for both oral and poster presentations are posted on the Division's website. Students who register for the meetings and present papers are invited to be the Division's guests at the Division Awards Banquet, where the awards will be announced, at the California Academy of Sciences Tuesday evening, June 17.

TECHNICAL SESSIONS

SYMPOSIA

The following symposia are planned for the annual meeting. Although most symposia are organized around invited papers, organizers often will consider adding one or more contributed papers if they are relevant to their programs. Should you wish to participate in one of these symposia, contact the symposium organizer whose name and e-mail address is given. Should you wish to present a paper in one of the contributed paper sessions, refer to pages 9 and 16 of this *Newsletter* (also check the Division's website, pacific.aaas.org, for the latest information on symposia and other program events).

If you plan to attend the meeting largely for one symposium or technical session, check the Division's website for updates to the program or phone the Division's meeting office at 541-552-6869 to confirm the status of the session(s) you want to attend before committing travel funds. Also, as additional symposia are added to the program they will be posted on the web.

(1) Biodiversity: Past, Present and Future, organized by Stan Blum, Brian Fisher, Michael Ghiselin, Nina Jablonski (co-chair) njablonski@calacademy.org, Alan Leviton (co-chair) alevito@calacademy.org, and Peter Roopnarine

(California Academy of Sciences). Scheduled for all day Monday and Tuesday, June 16 and 17. This symposium is part of the 150th anniversary celebration of the California Academy of Sciences.

The California Academy of Sciences is an institution dedicated to the discovery and documentation of biodiversity. In this symposium, scholars who have studied many aspects of the world's biodiversity will gather to reflect on what we know about biodiversity today and to consider directions for future initiatives in education and research related to the documentation and preservation of biodiversity. Many topics will be explored, including:

- Why knowledge about biodiversity is important to science and our world
- The assessment of past and present biodiversity
- Do we need to know about all species?
- Global patterns of biodiversity in the past, in relation to environmental change
- Can the past help to predict the future? Global patterns of modern biodiversity
- Biotic responses to modern environmental change
- Conservation genetics
- Habitats and species at greatest risk
- Invasive species
- Biodiversity, ecosystem function, and ecosystem services
- Public education about biodiversity

Speakers:

Anthony Barnosky (University of California, Berkeley)

Julia Berger (All-Species Foundation)

Michael Donoghue (Yale University)

Daniel Dykhuizen (SUNY, Stonybrook), "Species Numbers in Bacteria."

Paul Ehrlich (Stanford University), "Biodiversity, Systematics and the Human Predicament."

Terry Erwin (National Museum of Natural History [Smithsonian]), "The Significance of Beta-Diversity to Conservation Strategies."

Brian Fisher (California Academy of Sciences), "Problems of Species Ascertainment."

Jeremy Jackson (Scripps Institution of Oceanography, University of California, San Diego)

Nancy Knowlton (Scripps Institution of Oceanography, University of California, San Diego)

Larry Madin (Woods Hole Oceanographic Institution), "Climate Change and Biodiversity."

Michael McKinney (University of Tennessee, Knoxville), "Biodiversity Dynamics: What Can the Past Tell Us about the Future?"

Chris Wemmer (Smithsonian National Museum of Natural History), "Biodiversity in Developing Countries: A View from Myanmar."

Geerat Vermeij (University of California, Davis).

(2) The Future of Taxonomy, organized by Stan Blum, Brian Fisher, Michael Ghiselin, Nina Jablonski (co-chair) njablonski@calacademy.org, Alan Leviton (co-chair) alevito@calacademy.org, and Peter Roopnarine (California Academy of Sciences). Scheduled for Wednesday morning and afternoon, June 18. This symposium is part of the 150th anniversary celebration of the California Academy of Sciences.

Taxonomy—the science of describing, naming and classifying organisms—is currently undergoing a quiet revolution as biologists from many fields ponder the future role of taxonomy, especially in connection with the documentation of rapidly disappearing biodiversity. As an institution dedicated to systematic biology and taxonomy, the California Academy of Sciences sees the promotion of constructive scholarly dialogue on this topic as very important to the institution and to the advancement of natural knowledge. We hope in this symposium to address several important issues, including:

- the nature of taxonomy
- the status of "traditional" Linnean taxonomy and proposed alternatives
- taxonomy as information science
- the streamlining of taxonomic research
- the importance of all-species inventories
- the training of new taxonomists
- new applications of taxonomic research.

Speakers:

Peter Forey (Natural History Museum, London), "Naming the World: Is There Nothing Left of Linneaus Except His Name?"

Michael Ghiselin (California Academy of Sciences), "Classification is the Organization of Knowledge."

Charles Godfray (Imperial College, Ascot), "Taxonomy as Information Science."

Mikael Harlin (Vaxjo University, Sweden), "Naming Clades: Comparing Phylogenetic Approaches to Biological Nomenclature."

Alessandro Minelli (Universita di Padova), "Publications in Taxonomy as Scientific Papers and Legal Documents--and a Possible Way Out of Current Impediments."

Brent Mishler (University of California, Berkeley), "Biodiversity Isn't Species: The Tree of Life, Rank-free Phylogenetic Classification, and the Future of Bioinformatics."

Gavin Naylor (Iowa State University, Ames), "Better Models, Better Data, Better Trees, More Impact. Some Challenges and Opportunities for the Future of Molecular Systematics."

Kevin de Queiroz (National Museum of Natural History [Smithsonian]), "Species Concepts and Their Relationship to Taxonomy."

(3) The Bioregional Vision in Science and Art, organized by Robert Chianese (California State University,

Northridge) and Carl A. Maida (University of California, Los Angeles; cmaida@ucla.edu). Scheduled for Tuesday afternoon, June 17.

The way we look at land determines our attitude toward it. Whether we think about revering, saving, owning, reshaping, or developing it follows from our conceptions and perceptions of the very scene before us. Seeing is a formative process and reveals our conscious values and hidden assumptions about our own personal, social, and cultural relationships with the natural world. How we see shapes what we do, and few things are more complex than the cross-purposes that clash when a community or area proposes to develop land for residential, commercial, agricultural, industrial, or other uses. Seeing the land's natural character in its bioregional setting is difficult once it is marked by fences, roads, and jurisdictional boundaries of local, state, and national politics. An area may be crisscrossed by lines and borders that disregard its bioregional character as determined by its plants and animals, its watershed, its form, its elevation, or such things as its cultural or spiritual character. This interdisciplinary panel examines the varied and shared ways artists, ecologists, and scientists portray the land from a holistic, boundaryless point of view often in order to urge reconsideration of land use practices and policies. The panel will include presentations on writers, visual artists, ecologists, and scientists who have made the case for looking at the land in a bioregional manner, and it will explore the shared visions of humanists and scientists in their efforts to influence general and specific land policies that would make areas dedicated to human use more sustainable entities.

(5) Museums and Other Institutions of Natural History: Past, Present, and Future, organized by Alan E. Leviton (Department of Herpetology, California Academy of Sciences; alevito@calacademy.org).

The symposium will explore the natural history museum movement in the United States, drawing on exemplars of public regional and national museums, university-based museums, and other institutions of natural history that support research, field work and educational components. The museum movement will first be placed in an historical context. Then the symposium will explore visions of the future as seen through the eyes of museum scientists, administrators and planners. Scheduled for all day Monday and Tuesday morning, June 16 and 17. This symposium is part of the 150th anniversary celebration of the California Academy of Sciences.

Speakers:

Michele L. Aldrich (Cornell University) and *Alan E. Leviton* (California Academy of Sciences), "The California Academy of Sciences: Its Early Years."

Warren Allmon (Director, Paleontological Research Institution, Ithaca, NY), "Regional Natural History Museums in the 21st Century: A Case Study."

J. Thomas Dutro, Jr. (U.S. Geological Survey, Ret., and former Branch Chief, Paleontology and Stratigraphy Division), "The Fate of a National Research Laboratory in the Late 20th Century: A Case Study of the USGS Paleontology and Stratigraphy Branch."

Barbara Ertter (Jepson Herbarium, University of California, Berkeley).

John Farnam (Museum Design Consultant).

Sarah George (Director, Utah Museum of Natural History, University of Utah) and *Scott Sampson* (Paleontology, Utah Museum of Natural History, University of Utah), "Reinventing a Natural History Museum for the 21st Century."

Pamela Henson (Historian and Director, Institutional History Division, Smithsonian Institution Archives), "A National Science Museum: The Smithsonian Institution and the Emergence of American Science."

David Kavanaugh (Director of Research, California Academy of Sciences).

Patrick Kociolek (Executive Director, California Academy of Sciences).

Sally Gregory Kohlstedt (University of Minnesota), "The Museum Movement in the United States from the 18th Century to 1950."

Jere Lipps (Museum of Paleontology, University of California, Berkeley), "History, Development and Prospects of the Museum of Paleontology at the University of California, Berkeley, 1860-2010."

Ronald Rainger (History Department, Texas Tech University, Lubbock, TX), "Completing a History of Scripps Institution of Oceanography."

Hanna Shell (History of Science, Harvard University), "Embodying Extinction in the Natural History Museum: William Temple Hornaday and the Case of the American Buffalo."

Ellis Yochelson (Paleobiology, U.S. Geological Survey, Ret.), "The Beginning and End of Natural History at the United States National Museum."

(6) Use of Anthropology Toward Government Political and Foreign Policy Goals, organized by Alan Bain (Smithsonian National Museum of History; baina@osia.si.edu). Scheduled for Monday afternoon, June 16.

This session looks at the science of anthropology and explores how it has been used to support government policy. Two of the speakers review United States national and foreign policy: (1) government anthropology and relations with Native American Indians, and (2) the transfer, storage, and exhibition of cultural artifacts from the Ryukyu Islands as a reflection of a foreign policy goal to break the Islands away from mainland Japan and indirectly support the policy itself. The third speaker examines German and Austrian anthropology in Poland during World War Two and how Nazi anthropologists' certification of racial status to individuals

and entire villages consigned people of occupied countries to farm or slave labor, military service, the “swamps of the Ukraine” or extermination. The fourth speaker talks about Japanese anthropology in Korea and Taiwan and the use of anthropologists to support Japanese foreign policy in those regions during the Colonial period.

Speakers:

Alan Bain (Archivist, Smithsonian Institution Archives, Washington, DC 20560) “Museum Archives: Anthropology Records at the Smithsonian Institution.”

Gretchen E. Schafft (Applied Anthropologist in Residence, American University) “Anthropological Scientism in Support of Racism and Genocide during the Nazi Occupation of Poland.”

Kyung-soo Chun (Department of Anthropology, Seoul National University, Seoul 151-742, Korea 82-2-880-6424) “Japanese Colonialism: Anthropology in Korea and Taiwan.”

Yoko Genka (Archivist, Okinawa Prefectural Archives, 148-3 Arakawa, Haeburu, Okinawa, Japan 901-1105, 81-98-888-3875) “American Anthropology: Exhibitions and Collections from the Ryukyu Islands and United States Foreign Policy in the 1960s-1970s.”

(7) The Emerging Field of Astrobiology and Opportunities for the Public Understanding of Research, organized by Carol M. Tang (California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118; ctang@calacademy.org)

Astrobiology has become a prime example of interdisciplinary, systems-based scientific inquiry incorporating the fields of astrophysics, biology, geology, chemistry, and paleontology. In addition, with its widespread appeal and dissemination in the media, astrobiology has also become a vehicle for teaching the public about the process of scientific research. This session will introduce the scientific basis for this field and its application in formal and informal education.

(8) Scientists and Teachers Collaborating on Curriculum, organized by Kathleen A. O’Sullivan (Dept. of Secondary Education, San Francisco State University, San Francisco, CA 94132; kaosul@sfsu.edu) and Edna DeVore (SETI Institute, Mountain View, CA 94043; edevore@seti.org).

Over the past ten years, the SETI Institute, in collaboration with teachers, both local and nationwide, and with scientists from the California Academy of Sciences, NASA Ames Research Center, colleges and universities, and other institutions, has been involved in the development of science curriculum materials for use in elementary through high school classrooms. These include: Life In The Universe, a series of six curriculum guides for grades 4-8; Voyages Through Time, a year-long, high school curriculum based on the theme of evolution; and Active Astronomy, a set of classroom activities for learning about infrared light. This symposium will begin with a moderated panel of scientists

discussing their experiences in working with teachers to develop these materials. Topics to be addressed will include negotiating the breadth and depth of the science content, learning about the present day realities of teaching and classrooms, and working within the constraints of content and instructional standards. The panel discussion will be followed by three simultaneous breakout sessions. Each session will focus on one of the curriculum materials. These sessions will provide overviews of the curricula, demonstrations of sample activities, and discussions of how the pre-college materials can be adapted for introductory science classes at the college level. The organizers’ intent is that these sessions be of interest to and useful for both teachers and college faculty. Sample materials will be provided.

Speakers:

Pamela Harman (SETI Institute)

Michael Ghiselin (California Academy of Sciences)

David Milne (Evergreen College)

Yvonne Pendleton (NASA Ames Research Center)

Seth Shostak (SETI Institute)

Lisa White (Dept. of Geosciences, San Francisco State University).

(9) Changing the Reward System for University Science Professors, organized by Kathleen M. Fisher (San Diego State University, San Diego, CA; Kfisher@sciences.sdsu.edu).

How do we change the reward system for university science professors? That is the opening question for a symposium to be presented in San Francisco. The answers are varied and should stimulate a lively and, hopefully, productive (or at least thought-provoking) discussion. Donald Short will start by asking “Is this the wrong topic? A time for new ideas.” Susan Wykoff will then describe an effort to shift from lectures to interactive engagement and scientific reasoning at Arizona State University. Joyce Ono will describe efforts to initiate curricular reform at CSU-Fullerton through faculty collaboratives and a professional facilitator. Finally, a fourth speaker (still tentative) may address the culture change needed in universities in order to provide undergraduates with a high quality liberal education that addresses the impact of science and technology on society.

Speakers:

Susan Wykoff (Arizona State University, author of “Changing the Culture of Undergraduate Science Teaching: Shifting from Lecture to Interactive Engagement and Scientific Reasoning”, *JCST*, 30(5): 306-312)

Joyce Ono (Vice-Chair, Department of Biological Sciences, California State University, Fullerton, CA)

Donald Short (former Dean, San Diego State University College of Sciences and Professor of Mathematics, San Diego State University, San Diego, CA).

(10) Writing Science for the Public: A Personal Histories Panel Session, organized by Walter Carl Hartwig

(Division of Basic Medical Sciences, Touro University College of Osteopathic Medicine, Mare Island, CA 94592; whartwig@touro.edu).

Writing about scientific issues for a general audience challenges all parties, from writer to reader. In this two hour workshop a panel of five experts, including scientists and writers, will recount how they became accomplished at the task. For the remainder of the session the panel will field questions from the audience.

Panelists:

Jerold M. Lowenstein (Clinical Professor of Medicine University of California, San Francisco, CA)

Blake Edgar (Science Acquisitions Editor, University of California Press)

Kelly J. Stewart (Research Associate, University of California, Davis, CA, and Columnist, The Davis Enterprise)

Eugenie Scott (Director, National Center for Science Education)

Jay Withgott (Journalist)

(11) Native California, organized by Lee Davis (Director, California Studies Program, 377 Science Building, San Francisco State University, San Francisco, CA 94132; davislee@sfsu.edu).

This symposium will present current scholarship by anthropologists who are working collaboratively with California Indian tribes.

Speakers:

Lowell Bean (California State University, Hayward), "Cahuilla Tribal Leadership, Francisco Patencio."

Lee Davis (San Francisco State University), "Hoopa Tribe, Religion and Regalia."

Mariana Ferreira (Anthropology Department, San Francisco State University), "Native Californians on Death Row at San Quentin."

Brian Daniels (Anthropology Department, San Francisco State University), "Shasta Tribe, Survival after 19th Century Contact."

Tim Jordan (Anthropology Department, San Francisco State University), "The Ecology of Fire Use by Native Californians."

(12) New Methods for Controlled Patterning of Materials at Micro to Nano Scales, organized by Michael Zach (Banfield Lab, 307 McCone Hall, EPS, University of California, Berkeley, CA 94720-4767; mzach@eps.berkeley.edu).

Speakers:

Charles Ostman (NanoSig), "Overview of the New Emerging Patterning Technologies and Likely Trends to Be Seen."

John Whitaker (University of Washington), "Electrochemical Printing."

Guy della Cioppa (NanoInk, Inc.), "Applications of the Dip Pen Nanolithography™ Method of Nanoprinting and Nanomanufacturing."

Library Book Packs

\$90 postpaid
(a \$292 value!)

U.S. and Canada only...others please

contact us for additional shipping cost.

Have library access to all of the AAAS, Pacific Division books that are currently in print. Give this order form to your librarian and request that they place the order today! Or fill it out yourself to augment your personal library. For only \$90 postpaid, your library (or you) will receive one copy of each of the following:

- Agroecosystems and the Environment: Source, Control, and Remediation of Potentially Toxic Trace Element Oxyanions (cloth, 1998)
- San Francisco Bay: The Ecosystem (cloth, 1996)
- San Francisco Bay: Use and Protection (paper, 1982)
- Genecology and Ecogeographic Races (cloth, 1995)
- Cracking Rocks and Defending Democracy: The Life and Times of Kirtley Fletcher Mather, 1888–1978 (cloth, 1994)
- Dietary Factors and Birth Defects (paper, 1993)
- Crater Lake: An Ecosystem Study (cloth, 1990)
- Late Cenozoic History of the Pacific Northwest (cloth, 1985)
- Patterns of Evolution in Galapagos Organisms (cloth, 1983)
- Frontiers of Geological Exploration of Western North America (paper, 1982)

WHILE QUANTITIES LAST!!

Tables of Contents posted at pacific.aaas.org

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Questions? Phone 541-552-6869 or e-mail aaaspd@su.edu

Mail To:

AAAS, Pacific Division, Department of Biology,
Southern Oregon University, Ashland, OR 97520

Michael Zach (Miller Postdoctoral Researcher, University of California, Berkeley), “Electrochemical Exploitation of Defects on Electrode Surfaces.”

Additional ideas for symposia are always welcome but time is of the essence. As soon as possible, potential organizers should submit to the chair of the section in which the symposium will be presented (see list on page 14) a title, brief description of the symposium, and list of potential speakers and/or titles of presentations. Once approved, the symposium information will be added to the Division’s website. We are also now soliciting ideas for the 2004 annual meeting in Logan, Utah. See the “Call for Workshops and Symposia” on p. 17.

CONTRIBUTED PAPERS

Those wishing to submit papers for presentation at a contributed paper session should refer to the “Call for Papers” form in this *Newsletter* (see page 16) or download instructions from the Division’s website (*pacific.aaas.org*). Send a copy of the title and abstract to the Division’s Meetings Office at *aaaspd@sou.edu* and to the program coordinator of the society or section at which you would like to present the paper (see page 15 for postal and e-mail addresses). Abstracts should be submitted electronically as attachments via e-mail. If you are unable to do this, you may submit your abstract via regular mail. If submitting by mail, it is helpful if it is sent as a text file (Microsoft Word preferred) on either diskette* or CD-ROM, as well as a paper copy. If submitting your abstract by regular mail, address it to AAAS Pacific Division Meeting Office, Department of Biology, Southern Oregon University, Ashland, OR 97520.

Do not forget, the deadline for submitting titles and abstracts is April 25, 2003. If a title comes in after this date, it may not make it into the program. Also, be aware that the abstract you submit will be published as written. It will not be edited. If it contains errors, they will appear as submitted. Use your word processor’s spell checker. And remember, keep the length of your abstract within the limits stated in the directions for preparation of abstracts. Use 10-point Times (or variation) font (no exotic fonts, please!) for your abstract. An abstract submitted in a smaller type size will be reformatted to 10 point, and if it exceeds the limits of a box of 4.5”w x 5”h, it will not be published. Lastly, if yours is a student presentation, oral or poster, please state clearly that it is such so that it will be included in the judging competition.

Please note that diskettes are formatted for either Mac or IBM systems. The formats are not compatible, so please check with your program coordinator for the preferred format if you plan to send a diskette. The Division’s Meetings Office prefers Mac format, but can read both. This is not a problem

if you send your abstract electronically as an e-mail attachment or if it is sent on a CD-ROM.

**PACIFIC DIVISION AFFILIATED SOCIETIES
AND SECTIONS ACCEPTING CONTRIBUTED
PAPERS FOR PRESENTATION AT THE MEETINGS**

Western Society of Soil Science. Section Chair and Program Coordinator: Matthew J. La Force, Dept. of Geosciences, San Francisco State University, 1600 Holloway Avenue, TH 509, San Francisco, CA 94132-4163. Phone: 415-338-6869; e-mail: laforce@sfsu.edu.

Agriculture and Horticultural Science. Section Chair and Program Coordinator: Rhonda L. Miller, Dept. of Agricultural Systems Technology and Education, Utah State University, Logan, UT 84322-2300. Phone: 435-797-3772; e-mail: rlmiller@cc.usu.edu.

Anthropology and Archaeology. Section Chair and Program Coordinator: Nina Jablonski, Dept. of Anthropology, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118. Phone: 415-750-7161; e-mail: njablonski@calacademy.org.

Atmospheric and Oceanographic Sciences. Section Chair and Program Organizer: John Carroll, Atmospheric Sciences Section, Dept. of Land, Air and Water Resources, University of California, Davis, CA 95616. Phone: 530-752-3245; e-mail: jjcarroll@ucdavis.edu.

Biological Sciences. Section Chair and Program Coordinator: Anne Michelle Wood, Dept. of Biology, University of Oregon, Eugene, OR 97403. Phone 541-346-0454; e-mail: miche@darkwing.uoregon.edu.

Chemistry. Section Chair and Program Organizer: Owen M. McDougal, Department of Chemistry, Southern Oregon University, Ashland, OR 97520. Phone: 541-552-6407; e-mail: mcdougao@sou.edu.

Computer and Information Sciences. Section Chair and Program Organizer: Alan E. Leviton, Dept. of Herpetology, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118. Phone: 415-752-1554; e-mail: alevito@calacademy.org.

Earth Sciences. Section Chair and Program Organizer: J. Thomas Dutro, Jr., U.S. Geological Survey (E-308), National Museum of Natural History, Washington, DC 20560-0137. Phone: 202-343-3222; e-mail: dutro.tom@nmnh.si.edu.

Ecology and Environmental Sciences. Section Chair and Program Organizer: Michael Parker, Department of Biology, Southern Oregon University, Ashland, OR 97520. Phone: 541-552-6796; e-mail: parker@sou.edu.

Education. Section Chair and Program Organizer: Kathleen M. Fisher, Center for Mathematics and Science Education, 6475 Alvarado Road, Suite 206, San Diego State University, San Diego, CA 92120. Phone: 619-594-4453; e-mail: kfisher@sciences.sdsu.edu.

Engineering and Industrial Sciences. Section Chair and Program Organizer: Henry Oman (Boeing Company, ret.), 19221 Normandy Park Drive SW, Seattle, WA 98166. Phone 206-878-4458; e-mail: homan@ieee.org.

Health Sciences. Section Chair & Program Organizer: Carl Maida, Public Health & Community Dentistry, Room 63-023 Center for the Health Sciences, University of California, PO Box 951668, Los Angeles, CA 90095-1668. E-mail: cmaida@ucla.edu.

History and Philosophy of Science. Section Chair & Program Organizer: Michele L. Aldrich (Cornell University), 24 Elm Street, Hatfield, MA 01038. Phone: 413-247-5828; e-mail: 73061.2420@compuserve.com.

Psychology. Section Chair & Program Organizer: J. Ken Nishita, California State University, Monterey Bay, 100 Campus Center, Seaside, CA 93955-8001. Phone: 831-582-3563; e-mail: ken_nishita@csumb.edu.

Social, Economic and Political Sciences. Section Chair & Program Organizer: Mark Aldrich, Dept. of Economics, Smith College, Northampton, MA 01063. Phone: 413-585-3603; e-mail: maldrich@smith.edu.



**2004 PACIFIC DIVISION ANNUAL MEETING
IN LOGAN, UTAH**

The Pacific Division will hold its 2004 meeting on the campus of Utah State University. USU is located about 70 miles NE of Salt Lake City, in the beautiful Cache Valley. The University, established as Utah's land-grant institution in 1890, was first named the Agricultural College of Utah. Starting with a handful of students in the late 1800's, Utah State presently serves about 22,000 students each year.

Dr. Lynn Dudley (Department of Plants, Soils and Biometeorology, Utah State University) is chairing a multi-disciplinary program organizing committee in order to develop a very interesting program of symposia, workshops and field trips for the meetings. It's time to be thinking about programs for the Logan meeting and Dr. Dudley invites your suggestions. Please refer to the Call for Workshop and Symposium Proposals on page 17 of this *Newsletter*. You may write to him at Utah State University, Logan, UT 84322-4820, or contact him by phone: 435-797-2184, fax: 435-797-3376 or e-mail: ldud@mendel.usu.edu.

American Association for the Advancement of Science Pacific Division

84th Annual Meeting

San Francisco State University and the California Academy of Sciences

June 15–19, 2003

Call for Papers

Members of AAAS and its affiliated societies, students, teachers and other scientists are encouraged to participate in the annual meeting and present papers and/or posters. Persons wishing to present a paper or poster at one of the sessions should e-mail the title, abstract and other required information (see instructions below) to the chair of the appropriate society or section (see page 15) and also the Pacific Division office, aaaspd@sou.edu. The deadline for submission is April 25, 2003. Students must identify themselves so that judges will be able to evaluate their presentations for awards of excellence.

Please format your submission as follows:

Line 1: Your name

Line 2: Your telephone number and e-mail address

Line 3: Name of presenter (if different from above)

Line 4: Presenter's telephone number and e-mail address

Line 5: Society, section or symposium to which you are submitting your presentation

Line 6: Is the presentation oral or a poster?

Line 7: Special equipment needs (other than 35mm and overhead projectors)

Line 8: Is the presenter a student?

Line 9: Paper title in title case and italics (i.e. *Paper Title in Title Case*)

Author(s) name(s) in **ALL CAPS AND BOLD**

Full address(es), including institution, mailing address, city, state and zip code.

Line 10: Leave blank

Line 11: Text of abstract. Limit: 250 words.

Example of properly formatted abstract submission (lines 9-11)

Advanced Knowledge Acquisition in Elementary Biology. **KATHLEEN M. FISHER and STACY GOMES** (Center for Research in Mathematics and Science Education, San Diego State University, San Diego, CA 92120).

Advanced knowledge acquisition differs in important ways from introductory learning. Advanced knowledge acquisition refers to learning a content area beyond the introductory stage but before extensive experience and practice (Spiro, Coulson, Feltovich, and Anderson, 1988). At this stage, knowledge must be reasonably correct and active rather than inert. The goals of learning shift from knowledge reproduction to knowledge use. Advanced students need to become more comfortable with learning in different ways, more adaptive in using and applying knowledge, and more inclined to spontaneously restructure their knowledge. These advanced students are preparing themselves to leave school and enter practice in the workplace. They need to attain a deeper understanding of content material; reason with it; and apply it flexibly in diverse contents (Spiro, et al, 1988, p 375). They need to shift from being passive receivers of information to active organizers and users of their knowledge. In teaching biology to prospective elementary school teachers in their senior undergraduate year, we use a variety of strategies to achieve these ends, including: 1. stimulating curiosity and eliciting prior knowledge; 2. prompting students to build runnable mental models through prediction and interpretation; 3. promoting conceptual change by prompting 3a) cognitive disequilibrium and 3b) knowledge elaboration and by presenting 3c) ill-structured cases and 3d) knowledge construction activities; 4. promoting students' active learning; 5. providing scaffolding and support for student knowledge construction; 6. diagnosing and remediating underdeveloped cognitive and metacognitive skills; 7. prompting students to identify central ideas; 8. prompting students to integrate ideas; 9. avoiding oversimplification and overregulation; 10. prompting students to construct multiple representations; 11. building confidence and teamwork; and 12. evaluation for meaningful understanding. Two aspects which will be emphasized here are the use of SemNet[®] software to help students develop the skills and habits of meaningful knowledge organization and the use of two tiered multiple choice questions to assess conceptual understanding.

American Association for the Advancement of Science Pacific Division

*85th Annual Meeting
Utah State University
Logan, Utah
June 13–17, 2004*

Call for Workshop and Symposium Proposals

Members of AAAS and its affiliated societies, students, teachers and other scientists are encouraged to participate in the annual meeting by developing workshops and/or symposia. Persons wishing to develop a workshop and/or symposium for the 2004 Logan meeting should e-mail the title, description and other required information (see instructions below) to the chair of the appropriate society or section (see page 15 of this *Newsletter*) and also the Pacific Division office, aaaspd@sou.edu. The deadline for submission is **October 15, 2003**, although late submissions will be considered.

Questions? Contact Dr. Roger Christianson, Executive Director, AAAS Pacific Division, Department of Biology, Southern Oregon University, Ashland, OR 97520. Phone: 541-552-6747; e-mail: rchristi@sou.edu.

Workshops generally are 1/2- or full-day and may or may not accompany a symposium. If special facilities and/or equipment are required, be sure to identify what you need as completely as possible in your submission (see Line 8 below). If a cost is incurred, it will be passed along to participants as a workshop fee.

Symposia may be 1/2- or full-day or longer. Individual presentations are usually scheduled with more time than for contributed papers (30 minutes rather than 20 minutes) but the actual scheduling depends on the needs of the symposium and may be longer or shorter, even a mixture. Please contact Dr. Christianson to discuss your specific needs. When preparing your submission, please indicate which presenters are confirmed (see Line 8 below). If you do not yet have a list of presenters, you may submit a list of potential presentation topics. Please keep in mind that we need as much information as possible early on in order to adequately publicize the symposium.

Format your submission as follows:

Line 1: Organizer's name.

Line 2: Organizer's full mailing address, including academic/professional affiliation, telephone number and e-mail address.

Line 3: Co-organizer (if any).

Line 4: Co-organizer's full mailing address, including academic/professional affiliation, telephone number and e-mail address.

Line 5: Is this a Workshop or a Symposium?

Line 6: Number of 1/2-day (roughly three hours, depending on the needs of the program) sessions needed.

Line 7: Title of proposed program.

Line 8: If a symposium, list the name of each (proposed) speaker, including academic/professional affiliation, telephone number and e-mail address for each. Topic titles are optional at this time and will be requested later, along with an abstract for each presentation (see Call for Papers, page 16).

If a workshop, indicate facilities and/or special equipment required and number of participants that can be accommodated.

Line 9: Brief description of proposed program (please limit to 250 words).

AAAS PACIFIC DIVISION 84th ANNUAL MEETING
San Francisco State University and California Academy of Sciences
15 – 19 June 2003

HOUSING RESERVATION FORM

FOR ON-CAMPUS ACCOMMODATIONS and DINING SERVICES

Note: Do not send this form to San Francisco State University!

Address it to: AAAS Pacific Division, Department of Biology,
Southern Oregon University, Ashland, OR 97520.

To guarantee accommodations, this form and payment must be received at the office of the AAAS Pacific Division no later than Friday, May 2, 2003. Mail the completed form and payment (checks payable to AAAS Pacific Division or credit card information) to AAAS Pacific Division Meetings, Department of Biology, Southern Oregon University, Ashland, OR 97520. You may also fax the form to 541-552-8457 or telephone 541-552-6869 with the information.

Rates for on-campus dormitory housing include most meals (see page 4 of this Newsletter). Four nights, 15 - 18 June, are \$175 per person double occupancy or \$267 single occupancy. Five nights, 15 – 19 June, are \$213 double occupancy or \$317 single occupancy. SFSU is able to accommodate early arrivals up to two days in advance and late stays up to two days beyond the end of the meetings. Instructions for adding extra days may be found on page 5 of this Newsletter. Please note that on-campus parking is an additional charge of \$5/day, paid at the parking structure.

Circle one: Male Female

Name: _____

Mailing Address : _____

City _____ State _____ Zip : _____

Daytime phone : _____ E-mail: _____

If requesting a double,

roommate name : _____ OR please assign a roommate

ACCOMMODATIONS REQUESTED:

4 nights, Sunday, June 15 – Wednesday, June 18

Double Room(s) for ___ persons @ \$175/person = \$ _____

Single Room(s) for ___ persons @ \$267/person = \$ _____

5 nights, Sunday, June 15 – Thursday, June 19

Double Room(s) for ___ persons @ \$213/person \$ _____

Single Room(s) for ___ persons @ \$328/person \$ _____

TOTAL HOUSING \$ _____

(Checks payable to AAAS Pacific Division or credit card)

PLEASE NOTE: Requests for refunds must be in writing and received no later than May 12, 2003. A handling fee of \$10 will be applied. An additional 3% surcharge will be applied to credit card refunds.

CREDIT CARDS

Type of Card: Visa Master Card Discover

Credit Card # _____ Expiration Date _____

Signature _____

COMPLETE AND RETURN FORM WITH YOUR PAYMENT TO:

AAAS Pacific Division, Department of Biology, Southern Oregon University, Ashland, OR 97520.

Should you have questions, send an e-mail to: aaaspd@sou.edu

or call 541-552-6869 M-F between 9:00 am and 1:00 pm Pacific Time.

AAAS PACIFIC DIVISION 84th ANNUAL MEETING

San Francisco State University and

California Academy of Sciences

June 15-19, 2003

ADVANCE REGISTRATION FORM

FOR EARLY REGISTRATION, FIELD TRIPS, AND OTHER SPECIAL EVENTS

Note: Do not send this form to San Francisco State Univ. or the CA Academy of Sciences.

Address it to: AAAS Pacific Division, Department of Biology,
Southern Oregon University, Ashland, OR 97520.

Name: _____

Mailing Address : _____

City, State, Zip : _____

E-mail : _____ Day Phone: _____

Institution/Company, or City and State (to appear on your name tag): _____

AAAS member: Yes No Society/Pacific Division section affiliation : _____

Will you be presenting a paper or poster? Yes No
If so, in which affiliated society or Pacific Division section? _____

REGISTRATION FEES: Check all that apply.

Full Meeting:

	Received by May 23	Received after May 23	
Professional	<input type="checkbox"/> \$60	<input type="checkbox"/> \$80	
Teacher K-14	<input type="checkbox"/> \$40	<input type="checkbox"/> \$55	
Student	<input type="checkbox"/> \$30	<input type="checkbox"/> \$45	
Spouse	<input type="checkbox"/> \$30	<input type="checkbox"/> \$45	→ Name, City, State (for name tag): _____
Retired	<input type="checkbox"/> \$40	<input type="checkbox"/> \$55	_____

One-day

Professional \$40 \$55 → Select day: Mon. Tues. Wed./Thurs.

DIVISION BANQUET (June 17, Tuesday): The Division banquet will be held at the California Academy of Sciences. It will follow the presentation of Student Awards of Excellence and a mini-talk series on the history and future of the California Academy. Tickets must be purchased in advance. Students who are registered for the meetings and who have presented an oral or poster paper will be guests of the division.

_____ tickets @ \$28 each \$ _____ # vegetarian _____ # non-vegetarian
(if no choice is indicated, all meals will be non-vegetarian)

SEE REVERSE FOR FIELD TRIPS AND SUMMARY

FIELD TRIPS: Identify the trip(s) you in which you would like to participate.

Field Trip #1: Hopkins Marine Station & the Monterey Bay Aquarium on Sunday (see p. 8) ___ tickets @ \$38/person \$ _____

Field Trip #2: Streetcar to Subduction—2003 version on Sunday (see p. 8) ___ tickets @ \$35/person \$ _____

Field Trip #3: Cancelled

Field Trip #4: Tomales Bay Earthquake on Thursday (see p. 9) ___ tickets @ \$35/person \$ _____

SUMMARY:

Registration \$ _____

Banquet Tickets \$ _____

Field Trips \$ _____

TOTAL ENCLOSED \$ _____
(Checks payable to AAAS Pacific Division or credit card—see below.)

PLEASE NOTE: Requests for refunds must be in writing and postmarked no later than May 12, 2003. A handling fee of \$10 will be applied. An additional 3% will be added to credit card refunds.

To obtain a count of the numbers of people planning to participate in one or more of the events listed below, please indicate the special event(s) you plan to attend by indicating on the appropriate lines how many will attend each function. The opening Cracker Barrel Mixer is available to all participants, as is the Presidential Reception. The Tuesday evening Divisional Banquet requires the purchase of tickets in advance. Students who are registered for the meetings and have presented a paper or poster are guests of the Division at the banquet.

___ Cracker Barrel Mixer (Sunday evening, no charge to registrants and family)

___ Presidential Reception (Monday evening, no charge to registrants and family)

___ Division Banquet (Tuesday evening, at the California Academy of Sciences, \$25 cost)

CREDIT CARDS

To pay for your advance registration by credit card, you may

- mail this completed form to the address below or
- call 541-552-6869 from 9:00 am - 1:00 pm Pacific Time or
- fax this completed form to 541-552-8457.

Type of Card: Visa Master Card Discover

Credit Card # _____ Expiration Date _____

Name on Card _____

Signature of Cardholder _____

COMPLETE AND RETURN THIS FORM WITH YOUR PAYMENT TO:
AAAS Pacific Division, Department of Biology, Southern Oregon University, Ashland, OR 97520
Should you have questions, send an e-mail to aaaspd@sou.edu
or call 541-552-6869 between 9:00 am and 1:00 pm, Pacific Time, M - F.

Pacific Division Publications
Huge Book Sale—All Books \$10.00 ea
Includes shipping to U.S.A. and Canada.
Held Over! Sale ends 16 May, 2003.

Agroecosystems and the Environment: Source, Control, and Remediation of Potentially Toxic, Trace Element Oxyanions (1998; cloth, 213pp.); ~~\$20.00~~ **\$10.00** (ISBN 0-934394-12-1)

San Francisco Bay: The Ecosystem (1996; cloth, 542pp., col. plts.); ~~\$45.00~~ **\$10.00** (ISBN 0-934394-11-3)

Genecology and Ecogeographic Races (1995; cloth, 275pp.); ~~\$28.95~~ **\$10.00** (ISBN 0-934394-10-5)

Cracking Rocks and Defending Democracy: The Life and Times of Kirtley Fletcher Mather, 1888-1978 (1994; cloth, 342pp., 39 photos); ~~\$31.95~~ **\$10.00** (ISBN 0-934394-09-1)

Dietary Factors and Birth Defects (1993; paper, 410pp.); ~~\$28.50~~ **\$10.00** (ISBN 0-934394-08-03)

Crater Lake: An Ecosystem Study (1990; cloth 224pp.); ~~\$26.95~~ **\$10.00** (ISBN 0-934394-07-5)

Late Cenozoic History of the Pacific Northwest (1985; cloth, 417pp.); ~~\$28.95~~ **\$10.00** (ISBN 0-934394-06-7)

Patterns of Evolution in Galapagos Organisms (1983; cloth, 568pp.); ~~\$32.50~~ **\$10.00** (ISBN 0-934394-05-9)

San Francisco Bay: Use and Protection (1982; paper, 310pp.); ~~\$17.95~~ **\$10.00** (ISBN 0-934394-04-0)

Frontiers of Geological Exploration of Western North America (1982; paper, 248pp); ~~\$16.95~~ **\$10.00** (ISBN 0-934394-03-2)

Proceedings Series

Meeting Program with Abstracts (Proceedings Vol. 1, Part 1, 1983 through Vol. 23, Part 1, 2002); **\$7.50 each**

Evolutionists Confront Creationists (Proceedings Vol. 1, Part 3, 1984; paper, 213 pp.); **\$10.00**

Scientific Research and New Religions (Proceedings Vol 2, Part 2, 1985, paper, 180 pp.); **\$10.00**

California's Master Plan for Higher Education in the Twenty-first Century (Proceedings, Vol 13, Part 2, 1996; paper, 118 pp.); **\$10.00**

Address orders to: AAAS Pacific Division, Department of Biology, Southern Oregon University, Ashland, OR 97520

Phone: 541-552-6869; FAX: 541-552-8457; E-mail: aaaspd@sou.edu

ALL SALES FINAL—NO RETURNS

Payment must accompany all orders. Make checks payable to AAAS, Pacific Division.

Quantity	Title	Price Each	Total
SHIPPING (no charge to USA & Canada; others contact us for amount)			
TOTAL DUE WITH ORDER			

Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone _____ e-mail _____

CREDIT CARD

Visa Master Card Discover

Credit Card # _____ Expiration Date _____

Signature _____

Map of San Francisco State University Campus. Public parking structure 20–E,F5 on the map. Enter from Lake Merced Boulevard by turning east onto State Drive. Mary Ward Hall–H3. Seven Hills Center–H3. Campus Eats (Dining Center)–H4. Creative Arts Center–I8. (Courtesy San Francisco State University.)

Partial map of Golden Gate Park. The east half of the park and surrounding areas are shown. The California Academy of Sciences is located in about the center of this map. Directions from San Francisco State University: Drive north on 19th Avenue (Highway 1). Almost immediately after entering the park (just past signal at Lincoln Way), turn right onto Martin Luther King, Jr., Drive. Follow signs to the Academy. Parking is in a large lot in front of the Academy or on surrounding streets.

AAAS PACIFIC DIVISION 84th ANNUAL MEETING
San Francisco State University and the
California Academy of Sciences
15 - 19 JUNE 2003

SYMPOSIA

- Biodiversity: Past, Present and Future
- The Future of Taxonomy
- The Biogeographical Vision in Science and Art
- Museums and Other Institutions of Natural History:
Past, Present and Future
- Use of Anthropology Toward Government Political and
Foreign Policy Goals
- The Emerging Field of Astrobiology and Opportunities
for the Public Understanding of Research
- Changing the Reward System for University Science
Professors
- Scientists and Teachers Collaborating on Curriculum
- Writing Science for the Public: A Personal Histories
Panel Session
- Native California
- New Methods for Controlled Patterning of Materials
at Micro to Nano Scales

FIELD TRIPS

- Hopkins Marine Station and the Monterey Bay
Aquarium
- Streetcar to Subduction Earthquake Tour
- Tomales Bay Earthquake Tour
- California Academy of Sciences

SOME 150th ANNIVERSARY SESSION SPEAKERS

- | | |
|---------------------|-------------------|
| •Paul Erlich | •Sally Kohlstedt |
| •Daniel Dykhuizen | •Ellis Yochelson |
| •Terry Erwin | •Pamela Henson |
| •Michael McKinney | •Peter Forey |
| •Alessandro Minelli | •Kevin de Queiroz |
| •Charles Godfray | •Jere Lipps |
| •Hanna Shell | •Patrick Kociolek |
| | •Barbara Ertter |

FUTURE PACIFIC DIVISION MEETING SITES
2004 Utah State University, Logan, UT
2005 Southern Oregon University, Ashland, OR

AAAS, PACIFIC DIVISION
Department of Biology
Southern Oregon University
Ashland, OR 97520

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