The AAAS, Pacific Division begins its Centennial Year Celebration with its 96th annual meeting this June at San Francisco State University, San Francisco, California. The Division is especially pleased to welcome participants from the Northwest and Southwest Regions of Sigma Xi, The Scientific Research Society to our annual meeting. We take pleasure in acknowledging San Francisco State University, Sigma Xi, and the California Academy of Sciences as contributing sponsors of the meeting.

The Division’s Program and Special Events Committee and the local Program Committee on the SFSU campus have been hard at work assembling a program of exceptional scientific merit and interest. All scientists, including professors, teachers, students, and others, are invited to present the results of their research either orally or as posters at this meeting. All registrants for the meeting may attend all of the technical sessions as well as participate in the many other activities that are being planned. Some activities, notably field trips and selected workshops, require advance registration and payment of additional fees. Drs. John Hafernik and Kimberly Tanner, Department of Biology at SFSU, are co-chairs of the Division’s local organizing committee for this year’s annual meeting. Members of the Pacific Division’s Executive Committee and Council are also involved in developing the 2015 – Celebrating Our Centennial Year Meetings – 2015.
CONTENTS

AAAS, Pacific Division Newsletter  Number 64

2015 Meeting Announcement..............................1
San Francisco State University ................................2
Report on the 2014 Annual Meeting.......................3
California Academy of Sciences..............................4
Leviton Student Research Award 2014 Winner ..........6
In Memorium – Jay Vavra ..................................7
Student Awards at the 2014 Annual Meeting ...........12
Annual Meeting Information
Societies and Sections Sponsoring Sessions ..........9
Registration ..................................................9
Meeting Housing on Campus...............................9
Meeting Housing off Campus..............................11
Food on Campus ...........................................11
Travel to the Meeting ......................................11
Parking on Campus .........................................11
Registration Center ........................................13
Meeting Rooms .............................................13
Times and Locations of Presentations................13
Computers and PowerPoint ................................13
Call for Papers and Abstracts ..............................13, 28
Abstract Preparation .......................................13
Abstract Submission .......................................15
Student Awards for Excellence ..........................15
Special Events ..............................................17
Public Lectures .............................................19
Workshops ....................................................19
Field Trips ....................................................19
Symposia .....................................................21
Contributed Papers ........................................26
Poster Sessions ............................................26
Program Organizers .......................................27
Call for Papers and Abstracts ..............................13, 28
Call for Symposia and Workshop Proposals
for the 2016 San Diego Meeting .........................29
On-Campus Housing Registration Form ..............30
Advance Meeting Registration Form .................31
Pacific Division Publications and Book Sale ..........34
Map of SFSU Campus ....................................35

SAN FRANCISCO STATE UNIVERSITY

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 23 campus California State University—the largest system of public higher education in the country—and is a multipurpose coeducational institution with more than 30,000 students and 1800 faculty members. More than 93 percent of the students come from within the State of California, 22 percent of whom are from the San Francisco Bay Area. Through its eight schools, Behavioral and Social Sciences, Business, Creative Arts, Education, Ethnic Studies, Health and Human Services, Humanities, and Science and Engineering, the University offers undergraduate and graduate instruction for professional and occupational goals as well as liberal arts education. Bachelor’s degrees are offered in 115 academic areas, master’s degrees in 95 areas, and doctorate degrees in special education (in cooperation with UC Berkeley) and Educational Leadership (Ed.D.). Also offered is an M.S. in physical therapy leading to a clinical doctoral degree (D.P.T.) and a joint research doctorate with UC San Francisco for licensed physical therapists (D.P.T.Sc.).

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
In June 2014 the Pacific Division held its 95th annual meeting at the University of California, Riverside. Joining us in the meeting were the Northwest and Southwest Sections of Sigma Xi, the Scientific Research Society, and also the Molecular Reproduction and Development Program. There were many co-sponsors and donors who all contributed to make this meeting a terrific success and to whom we are most grateful. Co-sponsors were the University of California, Riverside, the Northwest and Southwest Sections of Sigma Xi, the Scientific Research Society, and Wiley. Donors who contributed money toward student registrations and activities, teacher K-14 stipends, meeting receptions, coffee breaks, parking fees, and general meeting expenses included Chancellor Kim A. Wilcox and his office at UC Riverside, Vice Chancellor Michael Passani for the Office of Research and Economic Development, Dean Joseph W. Childers for the Graduate Division, Dean Reza Abbaschian for the College of Engineering, Dean G. Richard Olds for the School of Medicine, Dean Marilyn Yates for the College of Natural and Agricultural Sciences, Bourns, Inc., the Bourns Revocable Trust, Babcock Laboratories, Wiley, Sigma Xi, and the local Pepsi Company. We are extremely grateful to each of these individuals and companies for the contributions they made toward the success of this meeting.

The technical program for the meeting included twenty-six symposia, two poster sessions, eight contributed paper sessions, and one workshop. Additionally, there were three field trips that travelled all around the countryside and campus tours to the UCR Botanic Gardens, the UCR Citrus Variety Collection, and the UCR Entomology Research Museum, Insectary, and Quarantine Facility. Activities began Tuesday with a field trip to the James San Jacinto Mountains Reserve and a second trip to Ritual Brewing Co. in Redlands to learn about

see DIVISION ACTIVITIES, page 8

ANNOUNCEMENTS

2015 and 2016 are notable milestones in the life of the Pacific Division!

The Pacific Division of AAAS was formed as a result of the call by AAAS for help in organizing its 1915 meeting in San Francisco. The AAAS constitution was emended in 1914 to accommodate divisions. That same year, the by-laws of the Pacific Division were approved by vote of the AAAS Council. In 1915, the fledgling Division participated in the San Francisco AAAS Meeting. The following year, the Division struck out on its own by holding its first annual meeting in San Diego. This year’s meeting brings us back to San Francisco for the beginning of our centennial year celebrations. Next year, 2016, we hope to meet in San Diego as a culmination of our centennial year celebrations.

TEACHERS K - 14

The first ten K - 14 teachers to register in advance (meeting registration received no later than 31 May 2013) for this meeting will receive, upon request, a $75 stipend to help defray their costs to attend! This stipend is not available to those who register on-site for the meeting. A $75 check, if requested, will be included with your registration materials at the Pacific Division Meeting Registration Center.

Judges Sought for Student Presentations

Student presentation judges are being sought for both oral and poster presentations at the Division's annual meeting. Previous experience evaluating student presentations is desirable for individuals who haven’t previously judged at a Pacific Division meeting. Judges must be available for an organizing meeting Sunday evening, 14 June, and be available to judge presentations Monday and/or Tuesday, 15 and 16 June. For additional information, please contact Dr. Roger Christianson, 541-552-6747 or rchristi@sou.edu. If you are interested in helping with this very important aspect of the annual meeting, be sure to mark the appropriate box on the Advance Registration Form (on page 31 of this Newsletter) and you will be sent an application.
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 1.1 million titles and subscribes to almost 5,000 print periodicals and scholarly journals and 22,000 electronic 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.

CALIFORNIA ACADEMY OF SCIENCES

Three years after the state of California was admitted into the Union, several men met on the evening of 4 April 1853 to discuss “the founding of an Academy for the development and study of natural phenomena.” On the following 16 May a constitution was adopted, bringing into being what was then called the Academy of Natural Sciences. In 1868 the
institution’s name was changed to the Academy of Sciences, later renamed the California Academy of Sciences.

The Academy was first located in a small building at 174 Clay Street, but soon moved to an abandoned Baptist church on the southwest corner of California and Dupont Streets, where their meetings and lectures soon attracted public interest. Drawing on donations of land and money from James Lick (of Lick Observatory fame), a six story stone building was constructed at 819 Market Street, with occupancy occurring in 1891. By this time the Academy had become one of the West’s most popular destinations, hosting 80,000 visitors a year.

The 1906 earthquake and fire proved disastrous for the Academy. Fortunately, the fire didn’t reach the Academy’s building until the second day, which provided time for the removal of limited numbers of books, some old records, a complete set of publications, and a very limited number of specimens. Everything else was lost in the fire. Just prior to the fire, a group of seven scientists set sail for the Galapagos aboard the Schooner Academy. The materials they returned with became the core of the Academy’s post-fire collections.

In 1910 the citizens of San Francisco voted to allow the Academy to relocate into Golden Gate Park. The new building was completed and opened to the public in September 1916. Over the decades, the facility grew to include the Steinhart Aquarium (1923), Simson African Hall (1934), Science Hall (1951), the Morrison Planetarium (1952), the Swamp (1963), the Fish Roundabout (1977) and more.

see HISTORY, page 6
The Pacific Division of AAAS has had a long-standing relationship with the California Academy of Sciences. Staff scientists and administrators at the Academy have served as Executive Directors (previously called Secretary-Treasurers) of the Pacific Division for 72 of the 100 years that the Pacific Division has existed (1919 – 1927, Winthrop W. Sargeant, Administration; 1946 – 1973, Robert C. Miller, Zoology; 1973 – 1975, Robert T. Orr, Mammology/Ornithology; 1975 – 1998 and 2001, Alan E. Leviton, Herpetology/Biogeography). That honor has been shared by only four other institutions: University of California, Berkeley (1916 – 1918, Albert L. Barrows, Zoology), Stanford University (1928 – 1942, James M. Luck, Biochemistry), University of Montana (1998 – 2001, David E. Bilderback, Plant Physiology) and Southern Oregon University (2002 – present, Roger G. Christianson, Biology) over the lifetime of the Division. Thus, it’s no surprise that, as the Pacific Division again meets in San Francisco, the California Academy is alongside the endeavor and contributing substantially to the program.

Information for this section was excerpted from a) an article by J. D. Gunder, “North American Institutions Featuring Lepidoptera,” Entomological News, Vol. 40, April, 1929 No. 4 and b) the following web page of the California Academy of Sciences: http://www.calacademy.org/academy/about/timeline.php. The California Academy has since removed this web page and replaced it with a differently organized one that contains different aspects of the Academy’s history at http://www.calacademy.org/our-history.
It is our sad duty to report that Jay Vavra, former Council member and contributor to the Pacific Division, passed away at the age of 50 from non-Hodgkins lymphoma on 22 October 2014. Jay received his bachelor’s degree from Stanford University after having received the Firestone Award as the outstanding biology student. He later received his Ph.D. in marine biology from the University of Southern California. In 2002 he began teaching biology at High Tech High (HTH), a charter school in San Diego that emphasizes project-based learning. There, he developed a series of innovative inquiry-based research projects involving collaborations with local biotechnology companies and the integration of humanities, math, and science. With his help, his students over time published a series of five books on the urban ecology of San Diego Bay. In 2007, Jay was honored as "Environmental Educator of the Year" for San Diego County. That same year he received the Amgen "National Science Teacher of the Year" award. In 2009 he received the National Education Association "Christa McAuliffe Award." He led students on two summer expeditions to Africa as part of a collaboration with Tanzanian wildlife officials and post-graduate students from Kenya, Tanzania, Sudan, and Uganda to develop methods for assisting with species identification in order to combat the bushmeat crisis—the illegal trade of meat from protected species that was usually disguised as coming from an unprotected source. He also worked in Mozambique on biodiversity assessment with E.O. Wilson to help re-establish the Gorongosa National Park and afterwards worked with Wilson and a team of leading science writers, biologists, educators, and digital animators on the digital textbook, "E.O. Wilson’s Life on Earth." For his innovative teaching practices, Jay received the Genzyme-Invitrogen Biotech Educator of the Year Award, Amgen Science Teacher Award, and Teaching Award. Additionally, he was a friend of primatologist Jane Goodall and helped establish a local Roots and Shoots group for students. Furthermore, Jay taught at San Diego City College and Southwestern College. As a scientist, he did research at McMurdo Sound in Antarctica, and archaeological field work at Skourta, Greece. If that all weren't enough, he also served on the Council of the Pacific Division of the American Association for the Advancement of Science (AAAS), and presented his work at AAAS divisional and national meetings. Jay was full of ambition and energy. He will surely be missed.

Additional information may be found on these web pages:
http://www.legacy.com/obituaries/utsandiego/obituary.aspx?n=jay-vavra&pid=173002292
microbrewery science as well as to take a pub tour. That evening was a very interesting lecture by Dr. Daphne Fairbairn (Department of Biology at UCR), *And Ever the Twain Shall Meet: An Exposé of Sexual Differences in the Animal Kingdom*, followed by a book signing by Dr. Fairbairn for her recent book, *Odd Couples: Extraordinary Differences Between the Sexes in the Animal Kingdom* and a very nice welcome reception sponsored by the UCR Office of Research and Economic Development and Pepsico.

Wednesday began with a bang, at least for some attendees, as Sigma Xi sponsored a well-attended membership breakfast. At about the same time, the technical program began in full force with several very interesting symposia: *Multi-Scale Bioengineering*, organized by Dimitrios Morikis and Valentine Vullev (University of California, Riverside); *Advances in Fluid Mechanics and Turbulence*, organized by Frank Jakobitz (University of San Diego) and Marko Prinevac (University of California, Riverside); *Boise Extravaganza in Set Theory (BEST)*, organized by Liljana Babinkostova, Andres Caicedo, Samuel Coskey, and Marion Scheepers (Boise State University); *Advances and Challenges in Marine Cell Biology*, organized by Amro Hamdoun (Scripps Institution of Oceanography) and Anthony De Tomaso (University of California, Santa Barbara); *Forensic and Clinical Service Challenges in a Juvenile Arson Explosives and Research Center (JAERIC)*, organized by Ronn Johnson (University of San Diego); *The Importance of Citizen Science*, organized by Kimberly A. Hammond (University of California, Riverside); *Forensic and Clinical Psychological Research in Uganda: Challenges for Trauma on Top of Trauma Service Delivery*, organized by Ronn Johnson (University of San Diego), and *Should Science Reform the Humanities?*, organized by Jesse James Thomas (San Diego State University).

Additional technical programs on Wednesday included five contributed paper sessions and a poster session. Topics in the contributed paper sessions included the areas of Atmospheric and Hydrospheric Sciences; Cell and Molecular Biology; Chemistry and Biochemistry; Earth Sciences; Ecology, Environmental Sciences, and Sustainability; Engineering, Technology, and Applied Science; Evolution, Organismal Biology, and Biodiversity; History and Philosophy of Science; Molecular Reproduction and Development; Physics and Materials Science; Science and the Arts and Humanities; and Social, Economic and Political Sciences. Topics in the poster session included the areas of Atmospheric and Hydrospheric Sciences; Chemistry and Biochemistry; Earth Sciences; Education; Molecular Reproduction and Development; Physics and Materials Science; and Two Dimensional Materials for Next Generation Devices. Additionally, there was one workshop, *PULSE-ating with Vision and Change: Promoting the Role of Faculty*, organized by David . Marcey (California Lutheran University) and Rick Gonzalez (University of San Diego).

Nestled in between all of the above sessions on Wednesday was the noon public plenary lecture, *Ecological Restoration and Post Natural Aesthetics*, presented by Dr. Robert L. Chianese (Professor Emeritus, Department of English, California State University, Northridge). Wednesday evening was a special treat, the Sigma Xi Distinguished Lecture, *Two Revolutions: Copernicus and Darwin*, presented by Dr. Francisco J. Ayala (University of California, Irvine).

Technical sessions continued Thursday, with additional thought-provoking symposia: *Theory, Experiment, and Computations: A Synergistic Approach to Research*, organized by C. Mark Maupin (Colorado School of Mines); *Ecology and Conservation in River Networks*, organized by Kurt E. Anderson (University of California, Riverside); *Accelerating Chemical and Biomedical Discovery with Molecular Simulations*, organized by Chia-en A. Chang (University of California, Riverside) and Dong Xu (Idaho State University, Meridian); *Two Dimensional Materials for Next Generation Devices*, organized by Jory Yarmoff and Jeanie Lau (University of California, Riverside); continuation of *Boise Extravaganza in Set Theory (BEST)*; *Promoting Deeper Learning in Middle Adolescence: Critical Connections and Implications for STEM Education*, organized by Carl A. Maida (University of California, Los Angeles) and Paul Heckman (University of California, Davis); *Future Trends on the Past History of Life*, organized by Bahram Mobasher (University of California, Riverside); *Computer Aided Drug Discovery and Development*, organized by Bahram Mobasher (University of California, Riverside) and Dong Xu (Idaho State University, Meridian); *Molecular Reproduction and Development*, organized by Gary M. Wessel (Brown University), Julian Wong (The Scripps Research Institute), Mark Paalman (Wiley), and Richard A. Cardullo (University of California, Riverside); *World War II Anthropology: Austrians and Germans in Poland; Japanese in Asia; Anthropological Research and the Search
program to ensure that it is of the highest quality.

This Newsletter contains a preliminary description of the scientific program, a call for abstracts, directions for preparation of abstracts, and information about registration, housing, transportation, special events, field trips, and symposia.

Following is a list of the Societies and Pacific Division sections that are planning to sponsor sessions at the meeting. The names and addresses of session chairs are found starting on page 27 of this Newsletter.

**Societies and Pacific Division Sections**

**Sponsoring Sessions at the Riverside Meeting**

California Academy of Sciences  
Sigma Xi, The Scientific Research Society  
Agriculture, Food and Renewable Resources  
Anthropology and Archaeology  
Atmospheric and Hydrospheric Sciences  
Cell and Molecular Biology  
(including medical and dental research in these areas)  
Chemistry and Biochemistry  
Computer and Information Sciences  
Earth Sciences  
Ecology, Environmental Sciences and Sustainability  
Education (Science and Technology)  
Engineering, Technology and Applied Sciences  
Evolution, Organismal Biology and Biodiversity  
General and Interdisciplinary  
History and Philosophy of Science  
Mathematics  
Physics and Materials Science  
Psychology  
Science and the Arts and Humanities  
Social, Economic and Political Sciences  
(including health services)

**Registration**

All persons planning to attend the meeting should use the Advance Registration Form on page 31 in this Newsletter to pre-register in order to receive the best registration rate. On-site registration will be available, but with higher fees. Advance registration fees (through 26 April) for the full meeting are $105.00 for professionals; $52.50 for retirees/emeritus, current post-docs, and students¹; and $35.00 for spouses/family members of registrants and unemployed individuals. K–12 and community college teachers are encouraged to attend the meeting for a reduced professional registration fee of $52.50. One-day professional registration is available for $70.00. Presenters and program organizers registering in the professional category may purchase a full-meeting professional registration at the discounted rate of $70.00. To be eligible for this discount, the individual must have submitted an abstract for presentation at the meeting that has either been approved or is pending approval, be listed as an organizer or co-organizer of a program, or be leading a field trip. Be sure to include this information in the appropriate space on your registration form. After 24 April, higher registration fees will be charged, as indicated on the Advance Registration Form. Beyond 29 May, on-site registration fees will be charged for both pre-meeting and on-site registrations. On-site registration fees for the full meeting are: professional, $135.00; program planners/presenters, $90.00; K–12, community college teachers, post-docs, students, retirees/emeritus, and unemployed $67.50; participating spouses and/or family members, and unemployed individuals, $45.00. One-day on-site professional registration will be $90.00. Note that If you attend more than one day, you must pay the full registration fee.

The first ten K–12 and community college instructors that register in advance (by 29 May) for this meeting will receive, upon request, a $75.00 stipend to help defray their expenses to attend the meeting. The stipend is not available to teachers who register on-site. Note that to receive the stipend you must check the appropriate box on the Advance Registration Form.

Students have the opportunity to apply for travel awards to help defray their costs for the meeting. See page 4 of this Newsletter for additional information.

Field trips: Pre-registration for all field trips is required due to limited seating in the vehicles and the need to inform some destinations of the number 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. Participants who are not registered for the meeting will be charged a one-time $10 field trip registration fee in addition to the fee for the field trip.

Please send your Advance Registration Form and accompanying payment to AAAS, Pacific Division, Southern Oregon University, 1250 Siskiyou Blvd., Ashland, OR 97520. Alternatively, and with a credit card, you may phone (541-552-6869) or fax the information (541-552-8457 – a dedicated fax line).

**PLEASE NOTE:** Requests for refunds must be in writing and received in the Pacific Division office no later than 15 May 2015. No refunds will be granted beyond this date. A $15 handling fee will be applied. An additional 3.5% deduction will be applied to the total amount for credit card refunds.

**On-Campus Meeting Housing**

A limited number of rooms in the Towers Junior Suites campus housing are available for participants at this meeting. The Towers Junior Suites are individual rooms that each have two beds and can accommodate one or two people. Each room has its own bathroom. Included in the basic housing package for three
A second poster session took place that morning. Featured were Agriculture, Food, and Renewable Resources; Anthropology and Archaeology; Cell and Molecular Biology; Ecology, Environmental Sciences, and Sustainability; Engineering, Technology, and Applied Science; Evolution, Organismal Biology, and Biodiversity; and Psychology, and two noon plenary lectures. Additionally, there were two noon plenary lectures, The Expanding Universe, Dark Matter and Dark Energy: The Three Greatest Discoveries in Cosmology, presented by Dr. Gillian Wilson (University of California, Riverside), and Currents Implicated in Cardiac Arrhythmia, presented by Mr. David Blackman (Southern Oregon University).

Thursday evening was the Division's annual banquet, which featured a short program that included the announcement of 62 sectional and division-wide student awards. Please turn to page 12 in this Newsletter for more details, photos, and names of the award winners.

Technical sessions continued on Friday with the following engaging symposia: a continuation of Molecular Reproduction and Development; California's World's Fairs: Panama Pacific International Exposition, San Francisco, 1915 and Panama-California Exposition, San Diego, 1915–1916, organized by Alan L. Bain (National Anthropological Archives); Challenges for Implementing Vision and Change in Science Classrooms, organized by Richard Cardullo (University of California, Riverside), and William B. Davis (Washington State University, Pullman); Libraries and Learning, organized by Crystal Goldman (San Jose State University), Frank Jacobitz and Amy Besnoy (University of San Diego), and Michele Potter (University of California, Riverside); Biotic Invasions: Impacts on Natural and Urban Communities and Ecosystems, organized by Erin Wilson Rankin and Richard Redak (University of California, Riverside); continuation of Boise Extravaganza in Set Theory (BEST); Climate Change Through the 20th and 21st Centuries, organized by Robert J. Allen (University of California, Riverside); and Applications of 3D Printing, organized by Joan Horvath (Deezmaker 3D Printers, Pasadena).

The noon public plenary lecture on Friday was Higher Infinity and the Foundations of Mathematics, presented by Dr. Joel David Hamkins (City University of New York).

Three workshops took place on Friday, DockoMatic: Experiments for the Science Curriculum, organized by C. Mark Maupin (Colorado School of Mines) and Owen M. McDougal (Boise State University); Open Source 3D Printing – How Does It Really Work?, organized by Joan Horvath (Deezmaker 3D Printers, Pasadena, CA); and Gas Diffusion Simulations for Chemical Engineering Curriculum, organized by C. Mark Maupin (Colorado School of Mines) and Owen M. McDougal (Boise State University). In addition, Friday morning was the panel discussion, Does Nature Photography Distort Environmental Realities?, organized by Robert L. Chianese and held at the California Museum of Photography.

Last but not least, a field trip led by Robert L. Chianese on Saturday took participants to the Huntington Library, Art Collections, and Botanical Gardens.

As has been demonstrated above, the programs of the meeting offered great variety, depth of content, and opportunities for networking among the participants.

Without the participation and help of these individuals, the 95th Annual Meeting would not have been the exceptional event it was. Our thanks go to Dr. Timothy P. White, Chancellor of UC Riverside through December 2012, for inviting the Pacific Division to hold its annual meeting on the UCR campus, and to Dr. Jane Close Conoley, Interim Chancellor, and Dr. Kim A. Wilcox, Chancellor starting September 2013 for supporting the forward movement of and support of plans on campus, ultimately culminating in our meeting. And thanks to the various Vice Chancellors, Provosts, Deans and others who made the meeting possible through their financial support for students and a wide variety of meeting activities. Thank you Dr. Richard Cardullo, chair of our local organizing committee, and the teams of people on both the Pacific Division side of the meeting and also the UCR side of the meeting who helped to develop a very fine technical program as well as other meeting events. Finally, our thanks go out to the many volunteers who stuffed meeting bags,
nights (Sunday, Monday, Tuesday) are 9 meals, dinner Sunday evening, breakfast, lunch and dinner Monday, breakfast, lunch and dinner Tuesday, and breakfast and lunch Wednesday. Included in the basic housing package for four nights (Sunday, Monday, Tuesday and Wednesday) are 12 meals, dinner Sunday evening, breakfast, lunch and dinner Monday, Tuesday and Wednesday, and breakfast and lunch Thursday. All meals are served at City Eats, the dining commons near the Towers Junior Suites. There is no refund for un-used meals.

Additional nights stays in the Towers Junior Suites, both pre- and post-meeting, are available for those purchasing a three- or four-night package. Extra nights include breakfast only the next morning. Unused meals from a three- or four-day package may not be applied to extra nights.

Please refer to page 30 in this Newsletter for details on pricing of housing packages and extra nights.

To apply for housing in one of the Towers Junior Suites, fill out the form on page 30 of this Newsletter. Please note that by applying for on-campus housing, you are agreeing to pay any additional fees that are assessed to the Pacific Division by SFSU relating to your stay in the mini-suites, such as lost keys, lost meal cards, use of “additional charge” facilities, fines, etc.

OFF-CAMPUS MEETING HOUSING

Unfortunately, there are no hotels close to the SFSU campus. That said, the Division has contracted for special meeting rates with the Hampton Inn in Daly City, about 2.5 miles from campus, and the Homewood Suites by Hilton, the Doubletree Hotel, and the Larkspur Landing South San Francisco, all near San Francisco International Airport and each about 10 miles or so from campus. If you’d rather stay downtown or in some other part of the Bay Area, we suggest you take advantage of hotel search engines such as Hotels.com, Priceline.com or Expedia.com in order to find the best deals.

Make your reservations for housing directly with the hotel/motel of your choice. Note that the AAAS, Pacific Division offers the above hotels without endorsement for any specific commercial enterprise.

Information about campus housing and also contracted housing at the Hampton Inn, Homewood Suites, Double-Tree Hotel, and Larkspur Landing, including such things as contact information, web links and links for reservations are available on this Division web page: http://associations.sou.edu/aaaspd/2015SANFRANCISCO/Housing15.html.

FOOD ON CAMPUS

The SFSU Cesar Chavez Student Center has a fairly extensive food court, which includes a variety of foods such as salads, Mexican, pizza, sandwiches, etc. Next to the SFSU campus is the Stonetown Galleria, which has an extensive food court. Alternatively, one can pay for a single meal at City Eats, the dining commons near the parking garage on the SFSU campus.

“The [AAASPD conference in Riverside] was well-organized and informative. It was encouraging to see how much hard work and thought the other students put into presenting their work. There is fantastic research being done! Presenting at this conference increased my confidence in my ability to communicate my results to others, as well as allowed me to interact with a variety of people, from students to professors to industry representatives.”

Bethany Caulkins
University of California, Riverside

TRAVEL TO SFSU

From the North: Take highway 101 south, cross the Golden Gate Bridge (toll $3). Take 19th Ave/Hwy 1 exit. Follow this (several miles) to a right turn onto Holloway Avenue. Turn right onto Font Boulevard. Then turn right to Lake Merced Boulevard. At the first stop light make a right onto State Drive.

From the East: I-80 across the Bay Bridge to Hwy 101 South. Take 101 South (stay on the right) to I-280 and take the second Daly City/Mission Blvd Exit. Exit, bearing right onto Sagamore St. and then to Brotherhood Way. Follow Brotherhood until it ends and then take a right to merge onto Lake Merced Boulevard. At the second stoplight make a right onto State Drive.

From the Northeast: I-5 to 505 freeway to I-80. I-80 across the Bay Bridge to Hwy 101 South. Take 101 South (stay on the right) and take the second Daly City/Mission St Exit, bearing right onto Sagamore St. and then to Brotherhood Way. Follow Brotherhood until it ends and then take a right to merge onto Lake Merced Boulevard. At the second stop light make a right onto State Drive.

From the South: On I-280 North stay towards the left lane to exit at 19th Avenue/Hwy 1 and then bear to the right onto the ramp to Brotherhood Way. Follow Brotherhoud until it ends and then take a right onto Lake Merced Blvd. At the second stop light make a right onto State Drive.

From SFO Airport: Highway 101 to 380 junction to I-280 North (follow signs to San Francisco). On I-280 North stay in the left lane to exit at 19th Ave./Hwy 1 and then bear to the right onto the ramp to Brotherhood Way. Follow Brotherhood until it ends and then take a right onto Lake Merced Boulevard. At the second stop light make a right onto State Drive.

PARKING ON THE SFSU CAMPUS

On-street parking on 19th Avenue between the Stonetown Shopping Center and Hensill Hall may be available. If so,
helped at the registration desk and did a myriad of things behind the scenes to help this meeting go smoothly.

**Divisional Student Presentation Awards**

**Laurence M. Klauber Award** – Travis Voorhees (California State Polytechnic University, Pomona, California), *Corrosion Behavior of Titanium Alloys Containing Boron Additions in Simulated Physiological Environments*.

**Geraldine K. Lindsay Award in the Natural Sciences** – Hiromi Uno (Department of Integrative Biology, University of California, Berkeley, California), *Mainstream-Tributary Food Web Interactions in River Networks Mediated by Migratory Mayflies and Anadromous Fish*.

**Best Poster Award** – Norton Thongchua (Chemical and Materials Engineering Department, California State Polytechnic University, Pomona, California), *Corrosion of Nickel Chromium Alloys in Molten Sodium Sulfate Salt at 900 C*.

**Presidents Award** – Trevor Auldridge and Jeremy Juybari (San Diego State University, San Diego, California), *Problem-Posing: How Altering Our Educational Philosophy Can Bridge the Divide Between the Sciences and the Humanities*.

**Rita W. Peterson Award in Science Education** – Alexandra Quackenbush (Department of Biology, University of Portland, Portland, Oregon), *Ethics Education for Students Engaging in Undergraduate Biological Research*.

**AAAS: Robert I. Larus Travel Awards** (two given this year) – Bethany G. Caulkins (Department of Chemistry, University of California, Riverside, California), *Crystallography in the Enzyme Active Site of Tryptophan Synthetase* and Campbell Dinsmore (Mechanical Engineering Department, University of San Diego, San Diego, California), *Subtle Effects of Air Lubrication*.
be sure to keep an eye on the time in order to not receive
an over-time parking ticket. Parking on campus is limited
to the large parking garage on State Drive, identified as
Lot 20 on the campus map (see map on page 35 of
this Newsletter). When parking, be sure to not park in Lot
19, which is also in the parking structure! Level 4i Or-
ange to 4n Orange and the roof level are restricted to staff
and faculty from 7:00 a.m. to 5:00 p.m. Rates are $4 For
2 hours and $7 for all day. Please note that exact change
is required; machines do not give change. Pay stations
will accept $1, $5 and $10 bills as well as credit/debit
cards and the SF State OneCard. Additional information
can be found by going to this web page: http://parking.
sfu.edu/sfsu-parking/campus-parking.

Registration Center

The Registration Center will be at the elevator alcove on the
third floor of Hensill Hall. Hours of operation are expected to
be as follows, though these may change. Be sure to check the
April Newsletter or website for updated information.
Sunday: 2:00 p.m. – 6:00 p.m.
Monday: 7:30 a.m. – 4:30 p.m.
Tuesday: 7:30 a.m. – 4:00 p.m.
Wednesday: 7:30 a.m. – 3:00 p.m.

Meeting Rooms

Technical sessions are expected to meet in rooms in Hen-
sill, Thornton, and Science Halls. All meeting rooms will
be equipped with computers running Windows and Micro-
soft PowerPoint, as well as computer projectors. Speak-
ers requiring other specialized equipment such as slide
or overhead projectors must make their requests known
when they submit their abstracts. If available, specialized
equipment will be provided. If rental costs are incurred,
payment of these costs will be the responsibility of the
requestor.

Times and Locations
of Presentations

The assigned meeting rooms and times of presentations
for the program will be published in the “Program with
Abstracts” issue of the Proceedings (Vol. 34, part 1),
which will be given to everyone who registers for the
meeting. Speakers may obtain final confirmation of the
time and place of their presentation by visiting the Pa-
cific Division website (pacific.aaas.org) starting no later
than 1 June 2015. Symposium planners will provide this
information to presenters in their programs in advance of
this date.

Computers and
PowerPoint Presentations

Meeting rooms will be outfitted with computers running Win-
dows and PowerPoint, and will be connected to standard data
projectors. If you are planning to use PowerPoint for your
presentation, you must make sure that it will run on the Win-
dows platform. Only CD-ROMs and thumb/USB/flash drives
may be used to load presentations onto the computers. If you
are preparing your presentation on a Macintosh computer,
make sure it will load to a computer running Windows and
that it looks on that platform the way you want it to appear.

Call for Abstracts

Members of AAAS and its affiliated societies, students,
teachers, and other scientists are encouraged to participate in
the annual meeting by presenting papers, either orally or as
posters. The deadline for submission of abstracts to sympo-
sium planners is Wednesday, 1 April 2015. The deadline for
submission of abstracts to section chairs for consideration for
inclusion in the contributed portion of the program is Friday,
24 April 2015. Instructions for the preparation and submis-
ion of abstracts follow.

Preparation of Abstracts

Properly prepared abstracts should contain two sections: 1)
title, name(s) of author(s), contact information for author(s)
and 2) the text of the abstract. All abstracts should be pre-
pared in 10 pt Times New Roman font, “NORMAL” style,
and left justified. These two sections should be prepared and
formatted as described below.

Title Line: The title of the presentation should be italicized
and in title case, with all principal words such as nouns,
verbs, adjectives, pronouns, adverbs, and the second parts
of hyphenated major words capitalized while small words
of three letters or fewer, such as articles, prepositions, and
conjunctions, remain in lower case unless they start the title,
follow a colon, or end the title). At the end of the title is a
non-italicized comma unless the title ends with an exclama-
ation or question mark, in which case there is no comma.

Authors’ Names: If there is more than one author for the pre-
sentation, all authors should be listed sequentially, starting
with the person who contributed the most to the project and
ending with the person who contributed the least. All names
should be in upper case and bold except for the word “and”
that occurs at the end of a list of presenters. There should be
no punctuation between the last presenter’s name and the left
brace for contact information.

Authors’ Contact Information: Contact information should
be inside of one set of parentheses and include the following,
if applicable: department, institution, city, state, and e-mail
address for at least the presenter. Additional e-mail addresses
SECTIONAL STUDENT PRESENTATION AWARDS

Combined Sections of
Earth Sciences
Anthropology and Archaeology
Agriculture, Food, and Renewable Resources
FIRST PLACE: John T. O’Connor (Department of Anthropology, University of Oregon, Eugene, Oregon), Archaelogical Feature Extraction from Aerial Imagery: Ahupua’a o Kola, Kaua’i.
HONORABLE MENTION: Claudia C. Marin (Department of Botany and Plant Sciences, University of California, Riverside, California), The Effect of Biochar Soil Amendments on Wheat Biomass.

Combined Sections of
Education
Social, Economic, and Political Sciences
Science and the Arts And Humanities
FIRST PLACE: Trevor Auldridge and Jeremy Juybari (San Diego State University, San Diego, California), Problem-Posing: How Altering Our Educational Philosophy Can Bridge the Divide Between the Sciences and the Humanities.
SECOND PLACE: Alexandra Quackenbush (Department of Biology, University of Portland, Portland, Oregon), Ethics Education for Students Engaging in Undergraduate Biological Research.
HONORABLE MENTION: Michael Eliot (Department of Physics, Huntington Beach High School, Huntington Beach, California), An Experimental Study of the Efficacy of Game Augmentation Learning Effects on Computer Aided Instruction (CAI) of Physics Science Tasks.

2D Materials Symposium
FIRST PLACE: Zhiyong Wang (Department of Physics and Astronomy, University of California, Riverside, California), Proximity-induced Anomalous Hall Effect in Graphene.
THIRD PLACE: Ariana Nguyen (Department of Chemistry and Materials Science and Engineering Program, University of California, Riverside, California), Novel Methods for the Growth of Single Layer Transition Metal Dichalcogenides.

Advances in Fluid Mechanics and Turbulence Symposium
FIRST PLACE: Campbell Dinsmore (Mechanical Engineering Department, University of San Diego, San Diego, California) Subtle Effects of Air Lubrication.
SECOND PLACE: Darren Banks (Department of Mechanical Engineering, University of California, Riverside, California), Recent Advances in Optical Thermocavitation.
HONORABLE MENTION: Cynthia Ajawara (Engineering Department, University of California, Riverside, California), Single Droplet and Train Impingement Pool Cooling.
HONORABLE MENTION: Kristian Wittman (Mechanical Engineering Department, University of San Diego, San Diego, California), Visualization of Direct Numerical Simulation Results of an Advection-Diffusion Equation for Magneto-Geostrophic Turbulence.

Cell and Molecular Biology
FIRST PLACE: Xiao Yang (Department of Bioengineering, University of California, Riverside, California), Role of LOX-dependent Matrix Stiffening in Diabetic Retinal Endothelial Inflammation.
SECOND PLACE: Sierra Asian B. Balatan and Nancy Silva (UCLA HHMI Pre-College Science Education Program, University of California, Los Angeles, California), Comparing Mandible Bone Marrow Derived Osteoblast Attachment to Titanium Scaffolds with or without UV Treatment.
THIRD PLACE: Sabrina C. Lin (UCR Stem Cell Center and Department of Cell Biology and Neuroscience, University of California, Riverside, California), Toxicology-in-a Dish: Using In Vitro Stem Cell Models to Predict Health Defects Due to Cigarette Smoke Exposure.
HONORABLE MENTION: Antonia Rizo (Department of Cell Biology and Neuroscience, University of California, Riverside, California), Metabolic Effects of Soybean Oil and Fructose in Female Mice.

Chemistry and Biochemistry
FIRST PLACE: Bethany G. Caulkins (Department of Chemistry, University of California, Riverside, California), Crystallography in the Enzyme Active Site of Tryptophan Synthetase.
SECOND PLACE: Jonathan Ashby (Department of Chemistry, University of California, Riverside, California), Screening of Nanoparticle-Protein Interactions.
THIRD PLACE: Kenneth Flack (Chemical and Biological Engineering Department, Colorado School of Mines, Golden, Colorado), Fraction-based Localization and Quantitation of MicroRNA Biomarkers.
may be included if desired. If more than one address occurs among the authors, use a superscripted number on the right of each author’s last name, followed by the corresponding superscripted number at the start of each unique address. If more than one author is listed, place a full size asterisk (*) next to the last name of the presenter. A period should be placed just to the right of the closing bracket. Applying all of these rules, a complete and properly formatted title line should look like this:

.Formatting an Abstract for Submission to a Pacific Division Section Chair and the AAASPD Meetings Office, SAMUEL P. KRAFTER*, YESIMAN AUTHOR1, and IDIDA DeREADING2 (1Department of Biology, Southern Oregon University, Ashland, OR; spkrafter@biology.sou.edu, yesauthor@gmail.com; 2Department of Academic Speech, Bureau of Speech Employment, Medford, OR; ideredad@bse.mfr.com).

Text of the Abstract: The purpose of an abstract is to give the reader a sense of what the presentation will be about. An abstract shouldn’t try to tell the whole story, but should give enough information in general terms so that the reader can ascertain the main thrust of the presentation and decide whether it will be worthwhile to attend. Thus, abstracts are limited to 250 or fewer words and should contain few if any references. It is OK to acknowledge funding sources at the end of the abstract, but the words used in this way do count toward the 250 word limit. For additional hints about writing good abstracts, try one of these two or other web pages: https://owl.english.purdue.edu/owl/resource/656/1/

http://writingcenter.unc.edu/handouts/abstracts/

Remember to use Times New Roman 10 pt font, “NORMAL” style, and left justification for your abstract! If you use a different font or style, your abstract will be reformatted to this font and style. If your abstract contains special characters, in addition to submitting it via e-mail you should fax (541-552-8457) or mail (AAAS Pacific Division, Southern Oregon University, 1250 Siskiyou Blvd., Ashland, OR 97520) a printed copy with the special characters clearly marked and notations indicating the font used. Be aware that if you use an unusual font set for special characters there is a high likelihood that we will not be able to print it correctly, so please use common font sets such as Symbol or Wingdings for special characters.

The first line of each paragraph of the text of your abstract should be indented 0.25 inches by using the FIRST LINE INDENT command of your word processor. Do not use a tab or the spacebar!

SUBMISSION OF ABSTRACTS

All abstracts must be submitted via e-mail as Microsoft Word (.doc or .docx) or .rtf file attachments. DO NOT SUBMIT ABSTRACTS IN THE BODY OF AN E-MAIL OR AS A PDF FILE!

Symposium abstracts should be e-mailed directly to the symposium organizer for review and approval. Persons submitting abstracts for contributed sessions (non-symposium) must identify the appropriate section to which the abstract will be sent for review and acceptance into the program (see list on page 27 of this Newsletter) and e-mail their abstract to the chair (and co-chair if one is listed) of that section. Contributed abstracts must also be e-mailed to the Pacific Division office (rchristi@sou.edu). The subject line of these e-mail submissions should include the phrase “abstract2015” (no space between abstract and 2015) and your last name (e.g.: Abstract2015 Smith). Including this information in the subject line will ensure that you receive an e-mail reply from the Division office confirming receipt of your submission at the Division office. Section chairs will make every effort to review submitted abstracts and notify submitters of whether or not their submission has been accepted into the program in a timely manner.

Abstract submission deadlines: Receipt of abstracts by symposium planners and section chairs have the following deadlines:

Deadline for abstract submissions for symposium presentations to symposium planners – Wednesday, 1 April 2015.

Deadline for abstract submissions for contributed sessions (poster or oral) to section chair and Division office – Friday, 24 April 2015. If you would like to discuss your submission with the chair of the section to which you are submitting it, please refer to page 27 of this Newsletter for contact information.

STUDENT AWARDS FOR EXCELLENCE

The AAAS, Pacific Division offers each affiliated society and section participating in the annual meeting the opportunity to recognize outstanding student participants through the presentation of Awards of Excellence and cash prizes of $150 for first place (minimum judging pool of 3 presentations), $100 for second place (minimum judging pool of 6 presentations),

Visit us at http://pacific.aaas.org
Computer and Information Sciences
FIRST PLACE: Joshua D. Hartman (Department of Chemistry, University of California, Riverside, California), Augmenting NMR Crystallography Through Fragment Methods.
SECOND PLACE: Nic Corona (Department of Computer Science, Boise State University, Boise, Idaho), Creating Computational Models of Cellular Development through Machine Learning in a Visual Programming Environment.

Ecology, Environmental Sciences, and Sustainability
FIRST PLACE: Hiromi Uno (Department of Integrative Biology, University of California, Berkeley, California), Mainstream-Tributary Food Web Interactions in River Networks Mediated by Migratory Mayflies and Anadromous Fish.
SECOND PLACE: Timea Deakova (Department of Biology, Portland State University, Portland, Oregon), Epiphytic Moss as a Biomonitor of Nitrogen Deposition in the Pacific Northwest.
THIRD PLACE: Timothy Kim (North Hollywood Gifted Magnet High School, North Hollywood, California), Survey in the Marsh Flats of the Ballona Wetlands to Determine the Occurrence of Non-Native Plants.

Engineering, Technology, and Applied Science
FIRST PLACE: Travis Voorhees (California State Polytechnic University, Pomona, California), Corrosion Behavior of Titanium Alloys Containing Boron Additions in Simulated Physiological Environments.
SECOND PLACE: Soroush Ardekani (Department of Bioengineering, University of California, Riverside, California), Comparing Mandible Bone Marrow Derived Osteoblast Attachment to Titanium Scaffolds with or without UV Treatment.
THIRD PLACE: Harry A. Scott (Department of Bioengineering, University of California, Riverside, California), Role of Matrix Stiffness in the Mechanochemo regulation of Endothelial Inflammation.
HONORABLE MENTION: Marissa Gionet-Gonzalez (Department of Bioengineering, University of California, Riverside, California), Fabrication of Silica Nanofibers for DNA Extraction.

Introduced Populations of Bromus rubens.
HONORABLE MENTION: Jared Mattos (Department of Biology, Boise State University, Boise, Idaho), Designing Computational Models of Planaria Regeneration for Use in Evolutionary Search.
HONORABLE MENTION: Deirdre McAteer (Center for Coastal Margin Observation and Prediction, Oregon Health Sciences University, Portland, Oregon), Red Water of Euduboscquella, a Parasitic Dinoflagellate that Infects Tintinnid Ciliates.

Mathematics
FIRST PLACE: William Chen (University of California, Los Angeles, California), Tight Stationarity and Careful Sets.
SECOND PLACE: Timothy Trujillo (University of Denver, Denver, Colorado), Basic Tuckey Reductions for Selective and Ramsey Filters on General Topological Ramsey Spaces.
THIRD PLACE: John Reynolds (University of Kansas), Tychonoff’s Embedding Into an H-Closed Space.
HONORABLE MENTION: E. William Krohne (University of North Texas), Existence of continuous Graph Homomorphisms from Z2.
HONORABLE MENTION: Kurt Mussell (Boise State University, Boise, Idaho), Selection Principles In Logic.

Evolution, Organismal Biology, and Biodiversity
FIRST PLACE: Matthew R. O’Neill (Scripps Institution of Oceanography, La Jolla, California), Expression of the Adaptive Cassette Transporter Sp-ABCC5a in Pigment Cells is Required for Sea Urchin Gastrulation.
SECOND PLACE: Joseph P. Campanale (Scripps Institution of Oceanography, La Jolla, California), ATP-binding Cassette Transporters Mediate Small Micromere Migration and Left/Right Coelomic Pouch Segregation in the Purple Sea Urchin, Stronglylocentrotus purpuratus.
THIRD PLACE: Eranthi U. Jayawardena (Department of Biology, University of California, Riverside, California), Detection of a Trypsin-like Protease in the Accessory Glands of Culex quinquefasciatus and the Reproductive Tract of Aquarius remigis.
HONORABLE MENTION: Rose Z. Hill (Scripps Institution of Oceanography, La Jolla, California), Localization and Trafficking of ATP-Binding Cassette Transporters in the Sea Urchin, Stronglylocentrotus purpuratus Embryo.
and $50 for third place (minimum judging pool of 9 presentations). Additionally, each winner receives a certificate of recognition. Societies sometimes supplement these awards with their own cash prizes.

In 2015, seven division-wide awards may be 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 Research; Best Poster Award (for posters only but otherwise unrestricted); and the AAAS–Robert I. Larus Travel Award, which will provide a reimbursement for travel and other meeting related expenses up to $1,000 for the awardee to attend the national meeting of AAAS in Boston, Massachusetts, 11 – 15 February 2016 for the purpose of presenting his/her winning presentation 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 for a sectional award or one of the division-wide awards, a student must be registered for the meeting prior to the session in which his/her presentation is to be judged, be the primary presenter of the presentation, and be the principal research investigator. Student presentations, both 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 meeting web page (http://associations.sou.edu/aaasdp/2015SANFRANCISCO/index.html). Students who are competing for Awards of Excellence are invited to be guests of the Division at the annual banquet Tuesday evening, 16 June 2015. Festivities that evening include the announcement of student awards. If you are one of these students, please be sure to check the appropriate box on the Advance Registration form to let us know you will be attending the dinner.

IMPORTANT NOTE: All judging for student awards ends by 3:00 p.m. on Tuesday, at which time the judges go into a closed session to determine the winners of the Division-wide awards. If you are a student wishing to compete for an Award of Excellence and your oral symposium presentation is scheduled to end later than 3:00 p.m. Tuesday, you must, in addition to presenting orally as part of the symposium, prepare a poster for presentation at a poster session earlier in the week. That way your presentation will be judged and you will be in the pool of potential prize winners. This may only occur if your presentation is part of a symposium. All poster sessions and oral contributed paper sessions are scheduled to ensure that student presenters are judged prior to the cut-off on Thursday afternoon.

**Special Events**

The following special events are planned for the meeting.

**Sunday Evening opening reception following the Presidential Address.**

**Monday evening program at the California Academy of Sciences, to include tours of the facility and a reception.**

**Tuesday evening student Awards Banquet.**

Tuesday evening will be an exciting time for everyone as Division representatives will announce the names of student winners of sectional Awards of Excellence and also winners of 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 Education Research, the Presidents’ Award for Excellence (unrestricted), the Best Poster Award (for poster presentations only but otherwise unrestricted), and the AAAS Robert I. Larus Travel Award.

The evening is planned to begin at 6:15 p.m. with a reception, followed by dinner service to begin about 6:45 p.m. After dinner will be a brief program, including the presentation of student awards. We ask that all student award winners stay for the group photograph to be taken at the conclusion of the evening’s program. The evening should end by about 9:00 p.m.

Banquet attendees can choose between three entrées: Sliced Tri Tip of Beef, with braised onions and wild mushrooms; Oven Roasted Halibut, with a beet and lemon compote; and Herb Marinated Portobello Mushroom and Ratatouille (a vegan offering), served over rosemary polenta and tomato coulis. All entrées include Caesar Salad, a starch and vegetable chosen by the chef, rolls and butter, water, coffee, and iced tea. Dessert is planned to be cinnamon banana bread pudding with vanilla sauce. Gluten free is an option. Societies sometimes supplement these awards with their own cash prizes.

**Sunday evening student Awards Banquet.**

Tuesday evening will be an exciting time for everyone as Division representatives will announce the names of student winners of sectional Awards of Excellence and also winners of 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 Education Research, the Presidents’ Award for Excellence (unrestricted), the Best Poster Award (for poster presentations only but otherwise unrestricted), and the AAAS Robert I. Larus Travel Award.

The following special events are planned for the meeting.

**Sunday Evening opening reception following the Presidential Address.**

**Monday evening program at the California Academy of Sciences, to include tours of the facility and a reception.**

**Tuesday evening student Awards Banquet.**

Tuesday evening will be an exciting time for everyone as Division representatives will announce the names of student winners of sectional Awards of Excellence and also winners of 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 Education Research, the Presidents’ Award for Excellence (unrestricted), the Best Poster Award (for poster presentations only but otherwise unrestricted), and the AAAS Robert I. Larus Travel Award.

The evening is planned to begin at 6:15 p.m. with a reception, followed by dinner service to begin about 6:45 p.m. After dinner will be a brief program, including the presentation of student awards. We ask that all student award winners stay for the group photograph to be taken at the conclusion of the evening’s program. The evening should end by about 9:00 p.m.

Banquet attendees can choose between three entrées: Sliced Tri Tip of Beef, with braised onions and wild mushrooms; Oven Roasted Halibut, with a beet and lemon compote; and Herb Marinated Portobello Mushroom and Ratatouille (a vegan offering), served over rosemary polenta and tomato coulis. All entrées include Caesar Salad, a starch and vegetable chosen by the chef, rolls and butter, water, coffee, and iced tea. Dessert is planned to be cinnamon banana bread pudding with vanilla sauce. Gluten free is an option.
Psychology
FIRST PLACE: Daniel Harmon (Department of Psychology, University of California, Riverside, California), Aversions to Water Consumption Increase with Proximity of Use.
SECOND PLACE: Cindy Kim, Yasmin Saadatzadeh, Andi Fessler, and Jessica Mueller (University of San Diego, San Diego, California), The Forensic Psychological Patterns of “No Shows” in Juvenile Fire Setters and Bomb Makers.
THIRD PLACE: Derrick Young, Andi Fessler, Christine Collins, and Alexis Wilson (University of San Diego, San Diego, California), Clinical Decision Making in the Treatment of Juvenile Fire Setters During the Treatment Termination Phase: A Second Risk Assessment.
HONORABLE MENTION: Cori Tergesen (Department of Psychological Sciences, University of San Diego, San Diego, California), Stress and Coping in College Students.

Physics and Materials Science
FIRST PLACE: Norton Thongchua (Chemical and Materials Engineering Department, California State Polytechnic University, Pomona, California), Corrosion of Nickel Chromium Alloys in Molten Sodium Sulfate Salt at 900 C.
SECOND PLACE: Obed Villalpando (California State Polytechnic University, Pomona, California), Electrochemical Impedance Spectroscopy of Ti-6Al-4V Containing Boron Additions in Hanks Balanced Salt Solution.
THIRD PLACE: Cory Gaines (California State Polytechnic University, Pomona, California), High Temperature Oxidation Behavior of Aluminized Austenitic Stainless Steel.
HONORABLE MENTION: Rukmini Ravi (Claremont High School, Claremont, California), Mechanical Characterization of an Adhesive Tape.
HONORABLE MENTION: Shahan Kasnakjian (California State Polytechnic University, Pomona, California), Effect of Activator in Pack Aluminizing Type 304 Stainless Steel.

EXECUTIVE COMMITTEE AND COUNCIL MEETINGS

The Division’s Executive Committee met on Monday, 16 June. At the meeting, chaired by Division President Dr. Richard Cardullo, Dr. Roger G. Christianson, Pacific Division Executive Direc-
tor, reported on Division activities that had occurred since the last Executive Committee meeting and also reviewed Division finances. Final plans for the Riverside meeting were discussed, as were preliminary plans for the 2015 meeting in San Francisco, California and very preliminary plans for the proposed 2016 meeting in San Diego, California. The Executive Committee also reviewed recommendations of the Presidential and Council Nominating Committees, urging Dr. Owen McDougal, chair of the Council Nominating Committee, to forward his committee’s recommendations for the two Council at-large and two Executive Committee positions to the full Council for nomination. The Executive Committee also voted unanimously to forward the name of Dr. Frank Jacobitz (Department of Engineering, University of San Diego, San Diego, CA) to the Council for nomination as President-elect of the Division.

The Council met over lunch on Tuesday, 17 June to consider various recommendations from the Executive Committee and other business of the Division. The Council acted favorably on the nomination of Dr. Jacobitz for President-elect during the 2014/2015 fiscal year. The Council also acted favorably on the recommendation of the Council Nominating Committee to elect Dr. Cheryl Jorcyk (Boise State University) to fill out a three-year vacancy on the Executive Committee and Ms. Crystal Goldman (University of California, San Diego) to a full five-year term on the Executive Committee. Additionally, the Council elected Drs. Armando J. Galindo (Pebble Beach, CA) and Robert Hickey (Central Washington University) to the two available at-large positions on the Council. Other Council business included the discussion of logistical details and programming for the upcoming 2015 and 2016 meetings of the Division, the reception of financial reports from the Executive Director, a rather lengthy discussion of the future of the Division and its relationship with AAAS, and the transaction of other business required by the by-laws.
option for all three of these meals, but must be specified in advance on the Advance Registration Form. Please note that details may change as we approach the banquet date. If a substitution must be made, every effort will be made to ensure that the replacement is comparable to or better than that which is listed above. A cash bar is anticipated during the reception and early part of the dinner for those wishing to purchase beer and/or wine. Banquet tickets are $40 each and should be purchased on the Advance Registration Form (see page 31 of this Newsletter) as there will be few available on-site. The deadline for ordering banquet tickets is the close of early registration for the meeting, 29 May.

Students in competition for Awards of Excellence are invited to be guests of the Division for this event. Be sure to check the appropriate entrée box on the Advance Registration Form (see page 31 of this Newsletter), which will indicate your plans to attend, and you will be provided a ticket at no cost. Additional banquet tickets are available to students at the full price of $40. Note that if you request a complimentary ticket we expect you to attend the banquet. Please do not dishonor the Division’s generosity in offering you this opportunity to fully participate in the meeting with minimal out-of-pocket expenses by asking for a ticket and then not showing up!

**Wednesday Morning Business Meeting of the Council of the Pacific Division.** The Council of the Pacific Division will hold its annual breakfast and business meeting at 7:00 a.m. on Wednesday, 17 June in a place yet to be determined on the SFSU campus. The Council will elect officers and Council members, discuss programs for the 2016 and 2017 annual meetings, and transact such other business as is required by the Division’s By-Laws. This is an open meeting and Pacific Division members with an interest in the governance of the Division are invited to attend.

**Public Lectures**

The following public lectures are planned. Additional ones may be scheduled as time permits. All members of the public are invited to attend these lectures at no charge.

**Sunday Evening Plenary Lecture**
**Monday Noon Public Lecture**
**Monday Evening Plenary Lecture**
**Tuesday Noon Public Lecture**
**Wednesday Noon Public Lecture**

Please watch the Pacific Division website for updates on these and other lectures as they are added. An updated list will also appear in the April Newsletter.

**Workshops**

Watch the Division’s meeting website, http://associations.sou.edu/aaaspd/2015SANFRANCISCO/Workshops15.html, for information on workshops being planned for this meeting.

**FIELD TRIPS**

All field trips are open to meeting registrants and their families. At least one member of a family group must be registered for the meeting. Unregistered family members will be charged an additional one-time-only $10 field trip registration fee. This fee is paid only once for this meeting, regardless of how many field trips a non-registrant participates in.

Due to limited space, advance registration is required for all field trips. Reservation and payment of field trip fee(s) are included on the Advance Registration Form (see page 31 of this Newsletter).

A full refund will be granted if a trip is cancelled by the Division. If a registrant cancels via e-mail or written notification received in the Pacific Division office no later than 15 May 2015, the registrant will receive a refund of the fee(s) paid less a $15 processing fee. If paid by credit card, an additional 3.5% of the original charge will be deducted from the amount being refunded to help pay for fees charged to the Division by credit card companies.

Additional information about these field trips may be found on the Division’s Field Trips web page: http://associations.sou.edu/aaaspd/2015SANFRANCISCO/FieldTrips15.html.

(1) **Sunday, 14 June, 8:30 a.m. to about 4:00 p.m. Natural History of Marin County.**

The trip will depart from San Francisco State University campus, crossing the Golden Gate Bridge and stopping at Bootjack Picnic Area at Mount Tamalpais State Park. Here we will hike about 1.5 miles each way through mixed evergreen, chaparral and serpentine habitats to observe the profoundly different habitats and abrupt changes depending on soil types. From Mt. Tamalpais we will travel to Pt. Reyes National Seashore, stopping at several key locations along the way. The differences between plant communities as we transition from the North American Plate to the Pacific Plate will be evident as we enter Bishop Pine forests, coastal scrub and strand communities, ending at the Point Reyes Lighthouse. We return via Sir Francis Drake Boulevard, passing by Samuel P. Taylor State Park and returning back across the Golden Gate Bridge.

Cautions: Coastal California can be hot (in the 90s) and may also include fog and strong winds and temperatures in the 50s at Pt. Reyes. It is important to have sun block, hats and protective clothing. It is advisable to dress in layers depending on the weather. Also, be sure to wear hiking shoes or boots suitable for the three mile hike. Be prepared for moderately steep portions of trails and then more level walks along a fire road.

Recommended clothing: It is important to have sun block, hats and protective clothing. It is advisable to dress in layers depending on the weather. Also, be sure to wear hiking shoes or boots suitable for the three mile hike. Be prepared for moderately steep portions of trails and then more level walks along a fire road.

Includes transportation and box lunch. Cost: $50.00 per person.

Visit us at [http://pacific.aaas.org](http://pacific.aaas.org)
(2) Sunday, 14 June, 10:00 a.m. to about 3:00 p.m. Plants and Plant Chemistry at the Regional Parks Botanic Garden, Berkeley.

The Regional Parks Botanic Garden, nestled in Tilden Park in the hills above Berkeley, is a natural living museum of California native plants. The 10-acre garden is a sanctuary for many of the state's rare and endangered plants and a place for visitors to wander among trees, shrubs, flowers, and grasses from plant communities throughout the state, including the Desert Area, the Channel Islands, the Sierran Section, the Coastal Area, the Temperate Rainforest, the Coastal Hills, and the Franciscan Peninsula. The Garden has an exceptional collection of manzanitas and ceanothus, and features several bulb beds. June is an especially beautiful time for plants in flower. After a tour of the Garden to view plants and talk about some of their special plant chemistry, we’ll have a picnic lunch at the Garden. If there is time, we’ll go on a short walk in the near vicinity in Tilden Park to view plant areas outside the Garden proper.

Cautions: Be prepared for 2 to 3 miles of walking. Some Garden trails are narrow, uneven, and may be muddy.

Recommended clothing: Comfortable walking shoes, sun protection.

Minimum 5 participants; maximum 15. Includes transportation, brochures and box lunch. Cost: $50.00 per person.

(3) Thursday, 18 June, 9:00 a.m. to approximately 4:00 p.m. Tiburon Uplands to the Romberg Tiburon Center on San Francisco Bay.

The Romberg Tiburon Center for Environmental Studies is San Francisco State University’s marine and estuarine research facility, located on the Tiburon Peninsula in Marin County. Led by Karina Nielsen, Director of the Romberg Tiburon Center, this full-day excursion will take you from the town of Tiburon through open space preserves at the upper elevations of the Tiburon Peninsula, with spectacular views of the bay, and then down to the bayside Romberg Tiburon Center to explore the historical ecology of the site and research activities at the center. The trip will depart from the San Francisco State University campus, crossing the Golden Gate Bridge and stopping in the town of Tiburon at the trailhead for the Old Saint Hilary’s Open Space Preserve. Here we will walk along the Heathcliff fire road and the ridge line of the peninsula, with exposed stretches of chaparral and grassland, and spectacular views of San Francisco Bay. We will then cross over the ridge on a narrow trail to the Tiburon Uplands trail and descend steeply through a wooded canyon filled with California bay laurels, coast live oak and toyon trees. At the bottom of the trail we reach Paradise Drive and the entrance gate to the Romberg Tiburon Center. We will break for a box lunch before exploring the Center’s interesting history, which includes the site being a former Navy Base, but also its current reincarnation as the hub of Bay area marine and estuarine research. We will learn about some of the exciting research projects being conducted by researchers and students affiliated with San Francisco State University, the San Francisco Bay National Estuarine Research Reserve and the San Francisco Bay Laboratory of the Smithsonian Environmental Research Center, including coastal and estuarine conservation and restoration projects, the effects of climate change and ocean acidification on marine life and more. Van drivers will be shuttled back to pick up the vans at the trailhead, returning to the Center at approximately 3 pm to drive participants back to San Francisco State University.

Cautions: Be prepared for moderately steep portions of trails and more level walking on the fire and paved roads. The hike is about 3 miles long with about 400 ft elevation change, much of it downhill. The hike ends at the Romberg Tiburon Center on the shore of San Francisco Bay.

Recommended clothing: Hiking boots, sunscreen and hat. Dress in layers, depending on the weather (may be hot or windy, foggy and cool).

Includes transportation, road log, water bottle, and box lunch. Cost: $55.00 per person.

(4) Thursday, 18 June, 9:30 a.m. to approximately 3:00 p.m. Back to the Future: A Visit to China Camp State Park.

China Camp State Park is a popular Marin County destination for family campers, hikers, mountain bikers, and nature enthusiasts. However, it is also one of the best examples of a relatively intact historic landscape in the lower San Francisco Estuary. Hills draped in mixed evergreen forest drain into transitional wetlands that then morph into some of the best salt marsh habitat in the region. Tidal sloughs drain the marsh across an extensive system of mud flats out into San Pablo Bay. At the eastern tip of the park, there is a living remnant of a once flourishing Chinese shrimp fishing village surrounded by rocky shoreline habitat that is still home to an Olympia oyster population. Thus, it uniquely offers a lens through which one can view and experience the historical ecology and biology of San Francisco Bay, part of the largest estuary in western North America. These special conditions have drawn the attention of researchers and educators for decades.

In 2003, China Camp State Park became part of the San Francisco Bay National Estuarine Research Reserve (SF Bay NERR), a federal-state partnership between NOAA, San Francisco State, and its land manager partners, such as the Department of California State Parks & Recreation. Selected as a reference tidal wetland landscape to help inform the massive wetland restoration effort underway in the region for the past two decades, its importance as a “sentinel site” system is all the more relevant today as we grapple with new threats posed to coastal resilience due to climate-related changes, such as rapid sea-level rise (SLR). Marshes, oyster shoals, and eel grass beds are increasingly recognized as keystone elements of a “green infrastructure” portfolio that can be harnessed to help protect our shoreline. Thus, if we are successful, the future of San Francisco Bay may some day look more like the remnant tidal wetlands at China Camp.
This tour of China Camp will be hosted by Dr. Mike Vasey, manager of the SF Bay NERR, and will focus on its special ecological and historical features. We will also discuss the latest science practiced at China Camp geared to understanding the function and value of tidal marshes in the face of SLR and how this knowledge can be used to improve regional policies and practices addressing this threat, and also to promote the successful restoration of tidal wetlands. Dr. Vasey will also be joining other scientists in a special symposium during the meeting entitled “Advancing Green Infrastructure for Habitat and Coastal Resilience” which should provide a good background for this visit.

Cautions: This trip is not challenging physically, with relatively level trails and short lecture/discussion sessions staged at road pullouts and parking areas that provide access to good viewing of the subjects of the discussions.

Recommended clothing: Comfortable walking shoes, a hat and sunscreen. Bring water. Binoculars are useful for wildlife sightings.
Includes transportation, lunch, field guide, and road log.
Cost: $55.00 per person.

**Technical Sessions**

**Symposia**

The following symposia are being planned for this meeting. Although symposia are typically 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 directly. Instructions for abstract preparation and submission for symposium presentations appear on pages 13f. of this Newsletter. Should you prefer to present a paper in one of the contributed paper sessions, you should also refer to pages 13f. for instructions and also page 27 for names of sections and program organizers in this Newsletter. Check the Division’s web page, http://associations.sou.edu/aaaspd/2015SANFRANCISCO/Symposia15.html, for the latest information on symposia.

Please remember that at this time the listings contained herein are tentative and subject to change. 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 contact the Division office at 541-552-6869 or aaaspd@sou.edu to confirm the status of the session(s) before committing travel funds. Additional symposia added to the program will be posted on the Division’s symposium web page, http://associations.sou.edu/aaaspd/2015SANFRANCISCO/Symposia15.html, at frequent intervals.

**Important notice for students presenting in symposia:** If you are a student who intends to be in the competition for an Award of Excellence and you are part of a symposium with your presentation scheduled Tuesday afternoon (check with the planner of your symposium) or Wednesday, you must also present your work as a poster in order to be judged. Otherwise, you will not be eligible for student awards due to the conclusion of judging Tuesday morning. Awards will be announced later that evening.

(1) **Saving Scientists from Themselves.** Organized by Rodger Bailey (American Institute of Applied Politics; baileygroupinc@icloud.com).

(2) **Library Science: Theory and Practice of Librarianship.** Organizer: Crystal Goldman (Geisel Library, University of California, San Diego, La Jolla, CA; clgoldman@ucsd.edu). Co-organizers: Frank Jacobitz (Engineering Department, University of San Diego, San Diego, CA; jacobitz@sandiego.edu and Amy Besnoy (Copley Library, University of San Diego, San Diego, CA; abesnoy@sandiego.edu).

Full day program not yet scheduled.

Library Science is a “discipline with primarily a practical aim” (Hjørland, 1999, p. 512). This does not transmute the fact that the field is grounded in fundamental theory and research. Practice-based research can relate to specific approaches to concrete problems at individual institutions, while theoretical research is more general in nature, can be applied to multiple library environments, and is not necessarily based on concrete practices (Audunson, 2007; Chow, Shaw, Gwynn, Martensen, & Howard, 2011; Hjørland, 1999). These methods of library research complement each other and work in tandem to enrich the discipline as a whole.

This symposium will focus on both the theory and practice of librarianship in academia, which invites an all-inclusive consideration of libraries and librarians in the learning environment. From case studies involving practice at specific institutions to abstract investigations addressing aspects of the discipline at large, this symposium intends to foster a dialogue on a variety of library issues, such as instruction, reference, cataloging, access, digitization, and scholarly communication.

(3) **Climate Change, Infectious Disease, Math Education and STEM Careers in the Virtual Gaming World-Whyville.net: A New Model for Engaging Children.** Organizer: James Bower

Digital learning games, in principle, provide exciting and scalable new mechanisms for engaging children in STEM...
users, average age of 13, and 78% of whom are female, Whyville.net remains one of the largest as well as the most experienced game-based learning worlds of its kind. Symposium participants will specifically present and discuss: “Why-Pox” the virtual contagious disease in Whyville; “Why-Reef” focused on the effects of global climate change on coral reefs developed in partnership with Chicago’s Field Museum; “Play Math” a game-based approach to fundamental math learning developed in partnership with the Educational Development Center (EDC); “Why-Power” a game-based exploration of energy issues and careers; and “Why-Careers,” a general virtual careers exploration developed in collaboration with the educational testing organization ACT. In addition to these individual games and activities, the symposium will also consider the value of embedding STEM learning games in a larger virtual social learning community.

(4) Science from Citizen Science. Organizer: Rebecca F. Johnson (Citizen Science Research Coordinator, California Academy of Sciences, San Francisco, CA; rjohnson@calacademy.org). Co-organizer: Allison Young (Citizen Science Engagement Coordinator, California Academy of Sciences, San Francisco, CA; ayoung@calacademy.org).

Half day program not yet scheduled.

Citizen science is a process through which everyone can take an active role in scientific discovery. By working together with scientists to gather data, interpret results and solve problems, citizen scientists participate and leverage their combined talents and passions toward answering some of the most pressing questions of our time. Local scientists utilizing citizen science as a strategy in their work will present the results of their research. In this way, we will begin a mini-bioblitz of the San Francisco State Campus and Lake Merced at the start of the conference and distribute information about how to participate in the bioblitz to all attendees. If possible, a monitor with a running tally of finds will be visible throughout the conference. During the late half of our session, we will actively search for and document biodiversity, using iNaturalist. We will then reconvene and go over our finds.

(5) Galápagos 2015: Science, Conservation, and History in the 180 Years Since Darwin. Organizer: Matthew J. James (Department of Geology, Sonoma State University, Rohnert Park, CA; james@sonoma.edu).

Three day program not yet scheduled.

2015 marks the 180th anniversary of Charles Darwin’s visit to Galápagos on HMS Beagle in 1835. It also marks the 110th anniversary of the highly successful 1905-06 scientific collecting expedition from the California Academy of Sciences. Considerable new information about science, conservation, and history in the Galápagos Islands has appeared in recent years, and this symposium will provide a venue for an international audience to meet and discuss those advances from previous AASPD Galápagos symposia in San Francisco in 1999 and 2009. In addition, attendees will have an opportunity to conduct specimen-based research, either before or after the symposium, on the zoological and botanical collections from Galápagos housed at the California Academy of Sciences.

(6) Web of Causation: Using Multiple Perspectives to Study Local Health Disparities. Organizer: Leticia Márquez-Magaña (Department of Medicine, Epidemiology, and Biostatistics, Center for Vulnerable Populations, San Francisco, CA; kmagana@medsfgh.ucsf.edu).

Half day program not yet scheduled.

The overall goal of the proposed program is to increase understanding of local health disparities and how disparities affecting youth are being investigated. The program will open with a panel presentation by local youth who will engage the audience with their first-hand accounts of how health disparities affect their everyday lives and communities. Following the panel presentation, Dr. Aragón will guide the audience in exploring local health disparities by describing the results of epidemiological studies of San Francisco (SF) neighborhoods. These results provide the rationale for research questions that must be solved in order to achieve health equity in these neighborhoods. To answer these questions, Dr. Márquez-Magaña will describe student training efforts based at SF State and UCSF that comprise the SF BUILD program. For example, BUILD scholars will participate in ongoing multidisciplinary studies to investigate local health disparities in asthma incidence among young
adults. The results of these on-going studies will be presented by Dr. Burchard. His presentation on studies of asthma disparities in youth will be followed by a more comprehensive presentation of health disparities found in SF minority youth by Dr. Bibbins-Domingo. She will end the program by linking health disparities found for SF youth to disparities found in the city’s adult populations.

(7) Ecological and Evolutionary Factors Driving the Emergence and Re-emergence of Vector-borne Diseases. Organizer: Andrea Swei (San Francisco State University, San Francisco, CA; aswei@sfsu.edu).

Half day program not yet scheduled.

Vector-borne diseases constitute a high percentage of the emerging infectious diseases that affect animals, plants, and humans. The factors that drive emergence are manifold and include globalization, land use changes, pesticide-resistance, changes in public health policy and infrastructure, and genetic mutations in pathogens. By definition, vector-borne disease systems involve at least three species: the pathogen, the vector, and the host species. In many cases there are multiple host species involved in the transmission cycle of the pathogen. Vectored pathogens are also unique because arthropod vectors often have close host relationships and are highly sensitive to changing environmental conditions. These factors make vector-borne disease systems highly sensitive to changing abiotic and biotic conditions such as climate change and shifts in host diversity. Whereas vector control was effective at controlling diseases like yellow fever in the early 20th century, recent decades have seen a resurgence and emergence of many vector-borne diseases. This panel will address some of the reasons behind recent vector-borne diseases’ emergence as a global public health problem and better understand and predict the future of vector-borne diseases.

(8) Advancing the Forensic Psychological Research Nexus Between Antiterrorism, Extremism, and Violence Against Police: A Lone Wolf Terrorist Perspective. Organizer: Ronn Johnson (Clinical Mental Health Program, School of Leadership and Education Sciences, University of San Diego, San Diego, CA; ronnjohn@sandiego.edu).

Half day program not yet scheduled.

Internationally, violent extremism impacts the lives of everyday people. For example, at least 145 Pakistani children were massacred one by one at school by Taliban extremists. One of the teachers was doused with gasoline and set on fire in front of students. Forensic research on police and other public safety personnel can be often used to assist with decisions that are designed to protect citizens from violent extremists. Police officers themselves have been victims of random acts of violence that may also be assessed as lone wolf terrorism (LWT). Citizens, forensic psychologists and law enforcement authorities are seeking ways to understand, predict, and work to proactively respond to violent extremism. As a result, clinical mental health professionals are frequently involved in a key role during prevention, assessment and intervention efforts as part of a multidisciplinary team. At a minimum, the role and responsibilities of a mental health professional by default requires advanced clinical skills, knowledge of the criminal justice system, as well as competencies in order to appropriately respond to cultural, ethical and the science based issues found in the various LWT cases. For example, are there forensic mental health standards for threat assessment practices that might be sufficient to compel police and public safety personnel to consider in their potential actions? Two New York City police officers were shot at point blank range as they sat in their patrol car. A small group of officers walking their beat were also attacked by an axe wielding assailant. One woman was decapitated by a radicalized coworker who had reportedly internalized violent extremism views via the internet. Correctional officers are quite concerned about the radicalization pathways for inmates.

This forensic mental health science symposium presents an empirically based conceptual framework on the issues that surround forensic practices in Lone Wolf Terrorism (LWT) cases. The symposium uses five paper presentations as a platform to examine several research factors related to LWT and violent extremism. A question and answer period follows a counter-point discussion of each paper presented. The presentations offer more informative questions than answers relative to the mindset of a terrorist. An internalized homeland security directive to “think like a terrorist” is instructive for antiterrorism efforts. What is lacking, however, is a clearer understanding of the motives behind strategic options extremists are exercising and possible antiterrorism responses. Effective counterstrategies are difficult to craft without understanding the logic that fuels acts of violent extremism. The presenters provide advice on ways a research based assessment may be employed as a means of organizing knowledge or disaggregating a largely new behavioral frontier of LWT, violent extremism and violence against police. The five forensic psychology research paper topics
are expected to include:
• Forensic Psychology in Evaluating a Lone Wolf Terrorist: An Analysis of the New York City Cop Killer
• A forensic psychological analysis of violence against police officers
• Self-radicalization and the on-line violent extremist’s use of the internet in the recruitment of lone wolf terrorists
• The public’s role in antiterrorism aimed at violent extremism
• Forensic psychological risk assessment for online violent extremists

(9) Research-Based Cultural Bridges Aimed at Reducing Fear and Building Trustworthy Public Safety Relationships Between Racially Diverse Communities and Police Departments: A Forensic Psychological Paradigm. Organizer: Ronn Johnson (Clinical Mental Health Program, School of Leadership and Education Sciences, University of San Diego, San Diego, CA; ronnjohn@sandiego.edu).

Half day program not yet scheduled.

The year 2014 was marred by a series of high profile deaths in the community. Several unarmed Black males were killed during scene management situations involving White police officers. Police officers were executed while on duty. As a result, relations between the community and police are significantly strained by these killings. Moreover, under these same divisive community circumstances a universally shared goal of public safety is threatened through a combination of reflexive finger pointing and a pervasive lack of trust both in the criminal justice system and the police. Police report a perceived lack of support for the stressful cross-racial demands of a job that, by default, can result in split second life and death decisions. From a forensic psychological perspective, these frayed relationships between community and police can also function as a climate that is ripe for terrorism. The post-incident blame rhetoric present on both sides of these issues was extremely hostile in the aftermath of the aforementioned killings. In fact, tensions are so high that it would not take much calculated creativity or resources for any self-appointed terrorist to ignite a community into violent protests and a predictable militarized police presence. For example, the reported mentally ill man who killed the two New York City police officers had earlier posted ominous comments on social media that essentially broadcasted what he intended to do (e.g., “I am putting wings on pigs today.”) in what he claimed to be retribution for the death of a Black man while being taken into police custody. Fear and a strong desire for public safety are two desired outcomes that are shared between every community as well as police officers. For example, in the cases where lethal force was used in the above cases, the involved officers claimed that they feared for their lives. People who reside in many communities throughout the United States also fear for their lives and want public safety. Fear reduction and ethnoracially trustworthy public safety are reasonable expectations that can be used in strengthening collaborative community-police relations. These shared outcomes do not preclude the community and police departments from independently or separately taking steps that are designed to enhance the capacity for building a stronger cultural bridge between them. The overall goal for relations between community and police is to provide a framework that promotes an idea that the current relationship status between community and police is unacceptable when it comes to reducing fear and achieving public safety. To achieve this goal, the symposium is expected to consist of five forensic psychology research papers that include:
• Group Treatment and Psychopathology: Building Community Capacity via Culturally Responsive Mental Health Services
• Procedural justice theory around legitimacy and public confidence in relationships between community and police
• Black and brown level of satisfaction perceptions and building positive community connections to police departments
• Relations between community and police: A Muslim perspective
• Collaboration and diverse citizen participation in police conduct review boards

(10) Biodiversity Science and Sustainability at the California Academy of Sciences. Organizer: Durrell D. Kapan (Senior Research Fellow, Institute for Biodiversity Science and Sustainability, California Academy of Sciences, San Francisco, CA; clgoldman@ucsd.edu). Co-organizer: Margaret (Meg) Lowman (Chief of Science and Sustainability, Harry and Diana Hind Dean of Science and Research Collections, and Lindsay Chair of Botany, Institute for Biodiversity Science and Sustainability, California Academy of Sciences, San Francisco, CA; mlowman@calacademy.org).

Half day program not yet scheduled.

The mission of the California Academy of Sciences is to explore, explain and ultimately sustain life’s diversity. Scientists at the Academy’s Institute for Biodiversity Science and Sustainability work at the interface between biodiversity and sustainability studying Earth’s diverse
and imperiled plants, animals and critical habitats. Our new citizen science platform, iNaturalist, accelerates the acquisition of biodiversity data at the same time as inspiring the appreciation of the diversity of life on earth. We explore how loss of diversity poses threats to wildlife or human health through invasive species or infectious diseases and also how human-associated species and human diversity itself connect us with our place in nature. During CAS expeditions and research we empower stakeholders to explore, explain and sustain their own natural environments in order to amplify the reach of our in-house experts to answer the most pressing scientific questions, but also to model the science and art behind translating biodiversity research into sustainability.


Half day program not yet scheduled.

Near-shore habitats such as wetlands and salt marshes are highly productive ecosystems that play significant roles in regional and global carbon cycles. These systems have received increasing attention in the past few years due to their potential to function as net sinks for atmospheric CO2. While significant advances have been made in quantifying the rates of organic-matter accretion in these systems, many questions still remain unanswered, including: What are the main environmental factors that control accretion of total organic matter? What controls the accretion of autochthonous versus allochthonous organic carbon? What are the near- and long-term fates of sequestered organic carbon, and how are they affected under different environmental conditions? This symposium will address these and related questions to explore the role of near-shore systems in San Francisco Bay and other systems within the context of global change.

(12) Advancing Green Infrastructure for Habitat and Coastal Resilience. Organizer: Kathy Boyer (Romburg Tiburon Center, San Francisco State University, Tiburon, CA; katboyer@sfsu.edu). Co-organizer: Mike Vasey (U.S. Geological Survey, Menlo Park, CA; mvasey@sfsu.edu).

Half day program not yet scheduled.

Climate-related threats to coastal environments (e.g., rapid sea-level rise and extreme flood events) have emerged as a defining issue of our day. This is particularly true for the San Francisco Estuary (SFE) where the information-technology economy of Northern California, poor at-risk communities, and vital transportation and water treatment structures are vulnerable. This prospect has mobilized the scientific and management community to explore alternative approaches to shoreline resilience by restoring “green infrastructure” (e.g. tidal wetlands, oyster reefs, and eelgrass) as an alternative to “grey” solutions such as concrete seawalls. Further, green infrastructure solutions could both protect our substantial investment in tidal wetland restoration as well as contribute to the ecological health of the SFE. These circumstances have stimulated a burst of innovative thinking and advances in green infrastructure planning and pilot projects within the SFE region that are testing this concept.

In this symposium, five experts involved in the SFE green-infrastructure movement provide short presentations that illustrate examples of this new technology and its potential for not only contributing to shoreline resilience but also to the recovery of the ecology of the SFE. This panel will then encourage a conversation with the audience concerning the green infrastructure movement in general and specific applications in the SFE in particular. A field visit to China Camp State Park, a component of the San Francisco Bay National Estuarine Research Reserve, will provide an experiential component to this evolving applied science that offers such promise and challenge for the SFE region.

(14) Hot and Cool Bugs: Energetics and Thermal Tol-erances of Insects in an Ecological Context. Organizer: Johnathon Stillman (Romburg Tiburon Center and Department of Biology, San Francisco State University, San Francisco, CA; stillmaj@sfsu.edu). Co-organizer: Caroline Wil-liams (Department of Integrative Biology, University of California, Berkeley, CA; cmw@berkeley.edu).

Half day program not yet scheduled.

This program addresses studies that examine thermal physiology of insects in an ecological context. Studies presented are geared towards understanding thermal tolerance limits and thermal sensitivity on metabolic energetics, habitat temperature and life history strategy, and on thermal adaptations to local microhabitat variation across relatively small spatial scales.

(15) Biodiversity of the Coral Triangle. Organizer: Ter-rence Gosliner (Department of Invertebrate Zoology, California Academy of Sciences, San Francisco, CA; tgosliner@calacademy.org). Co-organizers: Rich Mooi (Department of Invertebrate Zoology, California Academy of Sciences, San Francisco, CA; rmooi@calacademy.org). Co-organizer: Mike Vasey (U.S. Geological Survey, Menlo Park, CA; mvasey@sfsu.edu).

Half day program not yet scheduled.

This program addresses studies that examine thermal physiology of insects in an ecological context. Studies presented are geared towards understanding thermal tolerance limits and thermal sensitivity on metabolic energetics, habitat temperature and life history strategy, and on thermal adaptations to local microhabitat variation across relatively small spatial scales.
will be discussed based on the fossil record and genetic data. Symposium, latest advances in the field of human evolution our understanding of the history of our species. In this made in genomics, we have made major progress in proliferation of fossil discoveries and dramatic progress is among the most exciting scientific endeavors. With the Half day program not yet scheduled.

The Verde Island Passage of the Philippines is inhabited by the richest marine biota of anywhere in the oceans. Understanding the species diversity and distributional patterns of the marine biota are critical to developing conservation strategies for the Coral Triangle Region, and more specifically within the Verde Island Passage. Fundamental knowledge is rapidly being assembled to produce a more comprehensive picture of the overall richness of marine diversity patterns for the region and how it is distributed. Also critical to the success of rapidly converting this information into effective conservation strategies are the creation of community awareness in the region and the formation effective partnerships with conservation and governmental partners. This symposium focuses on the latest scientific discoveries for the region and how those data can be rapidly converted into effective outreach and conservation policies.

(16) Advances in Human Evolutionary Studies: The Fossil and Genetic Evidence. Organizer: Zeray Alemseged (Irvine Chair of Anthropology and Senior Chair, Institute for Biodiversity Science and Sustainability, California Academy of Sciences, San Francisco, CA; zeray@calacademy.org). Half day program not yet scheduled.

Establishing human biological evolutionary trajectory is among the most exciting scientific endeavors. With the proliferation of fossil discoveries and dramatic progress made in genomics, we have made major progress in our understanding of the history of our species. In this symposium, latest advances in the field of human evolution will be discussed based on the fossil record and genetic data.

(17) Theory, Experiment, and Computations: A Synergistic Approach to Research. Organizer: C. Mark Maupin (Chemical and Biological Engineering Department, Colorado School of Mines, Golden, CO; cmmaupin@mines.edu). Half day program not yet scheduled.

The utilization of theory and computations to complement and sometimes lead (i.e. theory driven research) experimental efforts is becoming increasingly common. The synergistic combination of experiment, theory, and computations has allowed for a greater understanding of many physical phenomena. The structural information obtained from various techniques such as X-ray and NMR is often critical to the creation of realistic models for computations, while theory and computations often reveal molecular level insights into catalytic mechanisms, binding phenomena, and system dynamics. This symposium is focused on the combination of experiment and theory/computations to expand our understanding of diverse systems ranging from gas phase reactions to complex condensed phase systems.

**Contributed Papers**

Those wishing to submit papers for presentation at a contributed paper session (oral or poster) should refer to the instructions for abstract preparation and submission on pages 13 ff of this Newsletter.

*The deadline for submitting abstracts for contributed papers (non-symposium) is Friday, 24 April 2015.* If an abstract comes in after this date, it may not be listed in 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. Be sure to keep the length of your abstract to no more than 250 words and use 10-point Times New Roman font (no exotic fonts, please!). Don’t forget to state clearly if yours is a student presentation so that it will be included in the judging competition. **Please remember that if you are a student who intends to be in the competition for an Award of Excellence and you are part of a symposium with your presentation scheduled on Tuesday afternoon or Wednesday (check with the planner of your symposium), you must also present your work as a poster in order to be judged. Otherwise, you will not be eligible for student awards due to the conclusion of judging early Tuesday afternoon. Awards will be announced later that evening at the banquet.**

**Poster Sessions**

Posters will be assigned a display space of 48” tall x 48” wide (1.2 m x 1.2 m) and will be grouped by discipline and subject matter. Posters will be mounted on foam core backings (supplied) using map pins (also supplied). In order to assure fairness, the Pacific Division Council took action stating that all student posters must fit within the assigned display space to be eligible for student Awards of Excellence. The use of extra space or an over-sized poster will disqualify a student from the awards competition.

Student posters will be judged to receive Awards of Excellence. Students must be present during the entire judging period to allow judges the opportunity to discuss their work and to evaluate their posters.

If you need a bit of help organizing the content of your poster, a website containing excellent information on poster preparation is [http://www.ncsu.edu/project/posters](http://www.ncsu.edu/project/posters).

“**The conference was very exciting as I learned how one topic could be interpreted in countless ways. This was an excellent experience into a part of the life of an academic.”**

— Jeremy Juybari
San Diego State University
Societies and Pacific Division Sections
Accepting Contributed Papers for Presentation at the Meetings

Sigma Xi, The Scientific Research Society. Please submit your abstract to the appropriate section from this list.

Agriculture, Food, and Renewable Resources. Section chair and program organizer: Please contact the Pacific Division office, rchristi@sou.edu, for information on this section.

Anthropology and Archaeology. Section chair and program organizer: Please contact the Pacific Division office, rchristi@sou.edu, for information on this section.

Atmospheric and Hydroospheric Sciences. Section chair and program organizer: Dr. Clive E. Dorman, Research Oceanographer, Integrative Oceanography Division, Scripps Institution of Oceanography Dept 0209, University of California, San Diego, La Jolla, CA 92093-0209. Contact: cdorman@ucsd.edu.

Cell and Molecular Biology (including Medical and Dental research in these areas). Section chair and program organizer: Dr. Kristen Mitchell, Department of Biology, Boise State University, Boise, ID 83725. Contact: 208-426-4620; kristenmitchell@boisestate.edu.

Chemistry and Biochemistry. Section chair and program organizer: Dr. Owen M. McDougal, Department of Chemistry and Biochemistry, Boise State University, Boise, ID 83725. Contact: 208-426-3964; owenmc dougal@boisestate.edu.

Computer and Information Sciences. Section chair and program organizer: Dr. C. Mark Maupin, Department of Chemical and Biological Engineering, Colorado School of Mines, Golden, CO 80401. Contact: 303-273-3720; cmmaupin@mines.edu.

Earth Sciences. Section chair and program organizer: Dr. Jad D’Allura, Department of Geology (emeritus), Southern Oregon University, Ashland, OR 97520. Contact: 541-899-7010 or 541-690-7739; dallura@sou.edu and rockitdishmail.net (copy e-mail to both accounts).

Ecology, Environmental Sciences, and Sustainability. Section chair and program organizer: Dr. Richard Van Buskirk, Environmental Studies Division, Pacific University, 2043 College Way, Forest Grove, OR 97116. Contact: 503-352-2251; vanbuskirk@pacificu.edu.

Education. Section chair and program organizer: Dr. Louis Nadelson, School of Education and Leadership, Utah State University, 2605 Old Main Hill, Logan, UT 84322. Contact: 435-797-7697; louis.nadelson@usu.edu.

Engineering, Technology and Applied Sciences. Section chair and program organizer: Dr. Frank Jacobitz, Department of Engineering, University of San Diego, 5998 Alcalá Park, San Diego, CA 92110. Contact: 619-260-7820; jacobitz@sandiego.edu.

Evolution, Organismal Biology, and Biodiversity. Section chair and program organizer: Please contact the Pacific Division office, rchristi@sou.edu, for information on this section.

General and Interdisciplinary. Section chair and program organizer: Ms. Crystal Goldman, UC San Diego Library, University of California, San Diego, 9500 Gilman Drive #175Q, La Jolla, CA 92093. Contact: 858-246-1626; clgoldman@ucsd.edu.

History and Philosophy of Science. Section chair and program organizer: Dr. Donald McGraw, P.O. Box 515, Ephraim, UT 84627. Contact: 619-947-5108; donaldjmcgraw@icloud.com.

Materials Science. Section chair and program organizer: Dr. George Quainoo, Department of Physics and Engineering, Southern Oregon University, 1250 Siskiyou Blvd, Ashland, OR 97520. Contact: 541-552-6404; quainoo@ sou.edu Section co-chair: Dr. Vilupanur Ravi, Department of Chemical and Materials Engineering, California Polytechnic University, Pomona, 3801 W. Temple Avenue, Pomona, CA 91768. Contact: 909-869-2627 vravi@csupomona.edu.

Mathematics. Section chair and program organizer: Dr. Liljana Babinkostova, Department of Mathematics, Boise State University, 1910 University Drive, Boise, ID 83725. Contact: 208-426-1172; liljanababinkostova@boisestate.edu.

Physics. Section chair and program organizer: Dr. Ellen Siem, Department of Physics and Engineering, Southern Oregon University, 1250 Siskiyou Blvd., Ashland, OR 97520. Contact: 541-552-6489; sieme@sou.edu.

Psychology. Section chair and program organizer: Dr. Veronica Galván, Department of Psychology, University of San Diego, San Diego, CA 92110. Contact: 619-260-7739; vgalvan@SanDiego.edu.

Science and the Arts and Humanities. Section chair and program organizer: Dr. Robert L. Chianese, Department of English, California State University, Northridge, Northridge, CA 91330; Current Contact Information: 2465 Hall Canyon Road, Ventura, CA 93001, 805-643-5034; rchianese@gmail.com.

Social, Economic and Political Sciences (including Health Services). Section chair and program organizer: Dr. Carl A. Maida, UCLA Schools of Dentistry and Medicine, University of California, PO Box 951668 CHS, Los Angeles, CA 90095. Contact: 805-492-5613; cmaida@ucla.edu.

As one of the few high school students who attended the Pacific Division AAAS Meeting in June, I truly benefited from the opportunity to be immersed in such a diverse group of researchers who presented their research in various fields. Although I had hoped to present to a larger group of people, the experience was unique nonetheless. I was fortunate to have been able to attend this meeting.

—Timothy Kim
North Hollywood Highly Gifted Magnet School

Visit us at http://pacific.aaas.org
96th Annual Meeting  
San Francisco, California  
14 – 17 June 2015

Call for Abstracts

Members of AAAS and its affiliated societies, students, teachers and other scientists are encouraged to participate in the annual meeting of the Pacific Division of AAAS by presenting papers and/or posters. Procedures for submitting abstracts for inclusion in the technical sessions of this meeting are presented in brief below and in full on page 13 of this Newsletter. Read both carefully before submitting an abstract!

For a contributed paper, e-mail the title, abstract and other required information (see instructions below and also on page 13 of this Newsletter) as a Word (.doc or .docx) or .rtf attachment to the chair of the appropriate society or section (see page 27 of this Call for Papers and Abstracts) and also the Pacific Division office at rchristi@sou.edu. If your abstract contains special characters, fax a copy of it with the special characters marked and the name of the typeface used to the Pacific Division office, 541-552-8457, in addition to the e-mail submission. The deadline for contributed paper abstract submissions is 18 April 2015. Students wanting to compete for an Award of Excellence must identify themselves as such on Line 7 of their abstract submissions so that judges will know to evaluate their presentations.

Presenters in symposia should submit their abstracts directly to the symposium planner. The deadline for symposium abstracts is 1 April 2015. Oral contributed papers are scheduled every 20 minutes, allowing about 14 minutes for the talk, about five minutes for questions at the end, and a minute or so for PowerPoint change-over. If you are presenting in a symposium, please contact the symposium organizer for presentation details.

Format your submission as follows:
Line 1: Submitter’s name
Line 2: Submitter’s telephone number and e-mail address
Line 3: Presenter’s name (if different from above) or “SAME” (if same as above)
Line 4: Presenter’s telephone number and e-mail address (if different from above)
Line 5: Society, section or program to which you are submitting your presentation for review (see page 27 of this Newsletter). Note: you must send your abstract to a section or program chair as well as the AAASPD office (see above). If you are presenting in a symposium, send your abstract directly to the symposium planner as well as the AAASPD office.

Line 6: Type of presentation (ORAL or POSTER)
Line 7: Is the presenter a student? (STUDENT or NOT A STUDENT)
Line 8: Special equipment needs (in addition to standard computer, computer projector, and PowerPoint)
Line 9 ff: Paper Title Italicized and in Title Case, AUTHOR’S NAME(S) (Full address(es), including institution, mailing address, city, state, zip code, and e-mail address(es)). Refer to the example below for additional information.

Example of a properly formatted abstract submission (lines 9 ff and 10 ff), plus additional information

Formatting an Abstract for Submission to a Pacific Division Section Chair and the AAASPD Meetings Office, SAMUEL P KRAFT-ER1, YESIMAN AUTHOR1, and IDIDA DeREADING2 (1Department of Biology, Southern Oregon University, 1250 Siskiyou Boulevard, Ashland, OR 97520; 2Department of Academic Speech, Bureau of Speech Employment, 12 Back Street, Medford, OR 97504; skraftf@biology.sou.edu). All authors should be listed sequentially, starting with the person who contributed the most and ending with the person who contributed the least. If more than one address occurs among the authors, use a superscripted number on the right of each author’s last name, followed by the corresponding superscripted number at the start of each unique address. Place an asterisk (*) next to the last name of the presenter. Submissions not formatted in this manner may be returned for reformatting or rejected.

Indent the first line of each paragraph of your abstract (Line 10 ff) 0.25 inches by using the first line indent command of your word processor. Do not use the tab or the spacebar! All text should be full justified.

Use 10 pt Times New Roman font and “NORMAL” style. If you use a different font, your abstract will be reformatted to this font. If your text contains special characters, they probably won’t accurately survive e-mailing and/or any required reformatting. Thus, in addition to an e-mail submission, abstracts that contain special characters should be faxed (541-552-8457) or mailed to the AAASPD office (AAAS Pacific Division, Southern Oregon University, 1250 Siskiyou Blvd., Ashland, OR 97520). Be sure to point out special characters in your abstract and identify the font set that contains them. If exotic fonts are used, we probably won’t have them available, so use common font sets (e.g. Symbol, Wingdings, etc.) for your special characters!

Send your abstract as a Word (.doc or .docx) or rich text format (.rtf) file attached to an e-mail addressed to the appropriate section chair (see Line 5 above) and also the AAASPD office at rchristi@sou.edu. Do not send your abstract in the body of an e-mail or as a PDF file as these will be rejected!
First Call for Symposium and Workshop Proposals

Members of AAAS and its affiliated societies, students, teachers and other scientists are encouraged to participate in the 2016 annual meeting by developing symposia and/or workshops. Persons wishing to develop a program for the San Diego meeting should e-mail the title, description and other information (see instructions below) to the Pacific Division office at rchristi@sou.edu.

Symposia may be 1/2-day, full-day or longer. Individual symposium presentations are scheduled at 30 minute intervals. Exceptions, depending on the needs of the symposium, may be longer, shorter, or even a combination of the two. Please contact Dr. Roger Christianson, Pacific Division Executive Director, to discuss your specific needs. When preparing your submission, indicate which presenters are confirmed and which are not (see Line 10 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 early as possible in order to adequately evaluate and publicize the symposium. Abstracts for symposium presentations are due into the planner's hands by 1 April and sent as a batch to the Pacific Division office by 8 April.

Workshops generally are 1/2-day 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 10 below). If a cost is incurred, it will be passed along to participants as a workshop fee in addition to the ordinary meeting registration fee.

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

Please format your submission as follows:
1: Organizer’s name
2: Organizer’s full mailing address, including academic/professional affiliation, telephone number and e-mail address
3: Co-organizer’s name(s) (if any)
4: Co-organizer’s full mailing address, including academic/professional affiliation, telephone number and e-mail address
5: Is this a Workshop or a Symposium?
6: Number of 1/2-day sessions requested (a session is roughly three to three and a half hours, plus a mid-session break).
7: Pacific Division section(s) and/or affiliated society requested to sponsor this program (see page 27 of this Newsletter). Note: You must identify at least one section or society to sponsor your program.
8: Title of proposed program
9: Brief description of proposed program (please limit to 250 words)
10: If a symposium, list the names of proposed (confirmed?) speakers, including academic/professional affiliation, and e-mail address for each. Presentation titles are optional at this time and will be requested later, along with an abstract for each presentation.
   If a workshop, indicate facilities and/or special equipment required and number of participants that can be accommodated.
AAAS, Pacific Division 96th Annual Meeting
SAN FRANCISCO STATE UNIVERSITY
ON-CAMPUS HOUSING APPLICATION

One form must be submitted for each individual requesting campus housing.
Type or print this form legibly! If faxing, use black ink. All blanks must be filled in.

Name __________________________________________________________________________

☐ Male  ☐ Female

Address __________________________________________________________________________

City, State, Zip ____________________________________________________________________

Phone (day): ___________________ Phone (evening): ___________________ E-mail: ___________________

For double occupancy: name of requested roommate _________________________________________ or ☐ assign roommate
For double occupancy, if no roommate specified, roommate will be assigned.

Refer to page 9 of this Newsletter for a description of the accommodations and options listed below.
No refunds will be given for unused nights of stay or meals. Key to meals: B = breakfast  L = lunch  D = dinner

HOUSING REQUEST:
Three night basic housing package –
Check in Sunday, 14 June, check out Wednesday, 17 June
Includes D Sun.; BLD Mon and Tues; BL Wed.
☐ Single, per person $385.00 
☐ Double, per person $250.00

Four night basic housing package –
Check in Sunday, 14 June; check out Thursday, 18 June
Includes D Sun; BLD Mon, Tues, and Wed; BL Thurs.
☐ Single, per person $510.00 
☐ Double, per person $330.00

Additional nights must be in conjunction with a three or four night basic package. They include breakfast each morning.
Single, per person $113.00 per night 
Double, per person $67.00 per night

☐ Friday, 12 June
☐ Saturday, 13 June
☐ Thursday, 18 June
☐ Friday, 19 June
☐ Saturday, 20 June

Deadline for Application
The completed application for housing must be received in the Pacific Division office no later than 15 May 2015. Space is on an “as available” basis.

Three Ways to Apply for Housing
1. Complete this form and send it to the Pacific Division office, either with a check in the full amount payable to AAAS, Pacific Division, or with credit card information completed below.
2. Call the Pacific Division office, 541-552-6869, between approximately 12:00 p.m. and 4:00 p.m. Pacific Time. Your information will be taken, along with the appropriate credit card information.
3. Fax your housing request, including credit card information. The 24-hour fax number is 541-552-8457. It is a dedicated line into the Pacific Division office.

Cancellation/Refund Policy
All cancellation/refund requests for housing must be made in writing to the Pacific Division office via USPS or e-mail. Requests must be received no later than 15 May 2015. Refunds are subject to a $15 processing charge and an additional 3.5% of the total if payment was by credit card.

Total Amount $ __________

Payment by Credit Card

Type of Card  ☐ Visa  ☐ Master Card  ☐ Discover ☐ Am Ex

Card Number ____________________________________________ Expiration Date __________ Today’s Date __________

Name on Card (print) __________________________________________________ Complete Card Billing Address ______________

Cardholder Signature ___________________________________________ City __________ State ___ Zip ________
**AAAS, Pacific Division 96th ANNUAL MEETING**  
San Francisco, California  
14 – 17 June 2015

**ADVANCE REGISTRATION FORM**  
FOR EARLY REGISTRATION, FIELD TRIPS, and OTHER SPECIAL EVENTS

*Send this form directly to*  
AAAS, Pacific Division • Southern Oregon University • 1250 Siskiyou Blvd • Ashland, OR 97520  
or call with information: 541-552-6869 or FAX to our dedicated line: 541-552-8457  

*PRINT CLEARLY or TYPE this form. If faxing, use black ink!*

| Name: ________________________________ | Date: __________________ |
|______________________________________|_______________________|
| Mailing Address: ___________________ | City, State, Zip: ______ |
|______________________________________|_______________________|
| E-mail: ___________________________ | Day Phone:____________ |
|______________________________________|_______________________|
| Institution/Company (for your name tag – if blank, city & state will be used): | |
|Memberships: AAAS □ Yes □ No | Sigma Xi □ Yes □ No |
| Other Affiliated Society Membership: | |
|How did you first hear about this meeting? | |
|Would you be willing to help judge student presentations at this meeting? □ Yes □ No | |
|Please see page 3 of this Newsletter for information about judging. If you check the “yes” box, you will be contacted for additional information. | |

**Check all that apply:**  
□ presenter  □ program planner  □ field trip planner

**If box checked above, in which program, field trip, or section?**  
(above must be filled out in order to receive program planner/presenter rate)

### A. MEETING REGISTRATION FEES:

<table>
<thead>
<tr>
<th></th>
<th>Received by 24 April</th>
<th>Received by 29 May</th>
<th>On-site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Meeting</td>
<td>$105.00</td>
<td>$120.00</td>
<td>$135.00</td>
</tr>
<tr>
<td>Professional</td>
<td>$70.00</td>
<td>$80.00</td>
<td>$90.00</td>
</tr>
<tr>
<td>Presenter/Planner</td>
<td>$52.50</td>
<td>$60.00</td>
<td>$67.50</td>
</tr>
<tr>
<td>Teacher K-14</td>
<td>$52.50</td>
<td>$60.00</td>
<td>$67.50</td>
</tr>
<tr>
<td>Post-Doc</td>
<td>$52.50</td>
<td>$60.00</td>
<td>$67.50</td>
</tr>
<tr>
<td>Student</td>
<td>$52.50</td>
<td>$60.00</td>
<td>$67.50</td>
</tr>
<tr>
<td>Unemployed</td>
<td>$52.50</td>
<td>$60.00</td>
<td>$67.50</td>
</tr>
<tr>
<td>Spouse/Family</td>
<td>$35.00</td>
<td>$40.00</td>
<td>$45.00</td>
</tr>
<tr>
<td>Emeritus/Retired</td>
<td>$52.50</td>
<td>$60.00</td>
<td>$67.50</td>
</tr>
</tbody>
</table>

*Student registrations include a one-year student membership with AAAS, including on-line access to Science magazine. Be sure to fill out and include the membership form on page 33 of this Newsletter when you register for the meeting.*

**One-day of Meeting**

| Professional         | $70.00               | $80.00             | $90.00  | Select day: □ Tues □ Wed □ Thurs □ Fri |

**B. DIVISION BANQUET:** The Division banquet will be held on the evening of Tuesday, 16 June and will include announcements of the student award winners. Students who are registered for the meeting and who present either orally or a poster are invited to be guests of the Division at the banquet and do not have to pay to attend but must check the appropriate box below. Refer to page 17 in this Newsletter for descriptions of the entrées.

*Student presenter ticket* @ no charge (choose one):  
□ Halibut-□GF*  □ Tri Tip-□GF*  □ Vegan-□GF*

**Tickets @ $40.00 ea.** Indicate quantity next to each choice:  
___ Halibut-□GF*  ___ Tri Tip-□GF*  ___ Vegan-□GF*

*Gluten free? If so, check the “GF” box next to the appropriate entrée(s).*

Complete reverse side before sending, calling, or faxing form.
**D. FIELD TRIPS:** All trips are priced per person (pp). See page 19 of this Newsletter for details.

<table>
<thead>
<tr>
<th>Field Trip Registration Fee for Non-Registrants (once per person)</th>
<th>__regs. @ $10</th>
<th>$ __________</th>
</tr>
</thead>
</table>

**Name(s) of people registered for field trips only:**

**Box lunch choice:**  
- [ ] meat sandwich  
- [ ] vegetarian sandwich

**Sunday, 14 June**

<table>
<thead>
<tr>
<th>Field Trip #1</th>
<th>Natural History of Marin County</th>
<th>__tickets @ $50.00 pp</th>
<th>$ __________</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Field Trip #2</th>
<th>Plants and Plant Chemistry at the Regional Parks Botanic Garden, Berkeley</th>
<th>__tickets @ $50.00 pp</th>
<th>$ __________</th>
</tr>
</thead>
</table>

**Thursday, 18 June**

<table>
<thead>
<tr>
<th>Field Trip #3</th>
<th>Tiburon Uplands to the Romberg Tiburon Center on San Francisco Bay</th>
<th>__tickets @ $55.00 pp</th>
<th>$ __________</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Field Trip #4</th>
<th>A Visit to China Camp State Park</th>
<th>__tickets @ $55.00 pp</th>
<th>$ __________</th>
</tr>
</thead>
</table>

**PLEASE NOTE:** Requests for refunds must be in writing and be received in the Pacific Division office no later than 15 May 2015. A $15 handling fee will be applied. An additional 3.5% deduction will be applied to the total amount for credit card refunds.

**E. RECEPTIONS:** To help estimate the number of people planning to participate in the events listed below, please indicate the number of people in your party that plan to attend each.

- ___ **Sunday Evening Reception** (no charge to registrants and family members)
- ___ **Monday Evening Reception** (no charge to registrants and family members)

**CREDIT CARDS**

To pay for your advance registration by credit card, you may
- mail this completed form to the address below, or
- phone the information to 541-552-6869 between about 12:00 p.m. and 4:00 p.m. Pacific Time, or
- fax this completed form to 541-552-8457 (dedicated fax line into the Pacific Division office).

**Type of Card:**  
- [ ] Visa  
- [ ] Master Card  
- [ ] Discover  
- [ ] AmEx

**Credit Card Number** ______________________________  
**Expiration Date** ______________________________

**Name on Card** __________________________________________________________________________

**Complete Billing Address for Card** __________________________________________________________________________

**Signature of Cardholder** __________________________________________________________________________  
**Date** ______________________________

**COMPLETE AND RETURN THIS FORM WITH YOUR PAYMENT TO:**  
AAAS, Pacific Division • Southern Oregon University • 1250 Siskiyou Blvd • Ashland, OR 97520

Should you have questions, e-mail us at aaaspd@sou.edu or call 541-552-6869 M – F 12:00 p.m. to 4:00 p.m., Pacific Time.
**STUDENTS!**

Students must fill out this form and return it along with their Advance Registration Form in order to receive their one-year membership in AAAS! This form is for use only by students who are registering for the 2015 Annual Meeting of the AAAS, Pacific Division in San Francisco, California.

| **Science**  
| **AAAS**  
| **Student Membership Application**  
|  
| Includes AAAS Membership, Full-Text  
| *Science* Online, and Full Member Benefits  

**Name and Address** Please print clearly

- Check here if this is a renewal. AAAS number, __________

<table>
<thead>
<tr>
<th>NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STATE/PROVINCE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COUNTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ZIP/POSTAL CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E-MAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

**E-mail Privacy**

Please check one:

- I want to receive occasional e-mails from AAAS/*Science*, including those on scientific products and services offered by outside organizations. I understand that the e-mails will be sent by AAAS/*Science* or its agent, and my e-mail address and information will not be exchanged or disclosed to the outside organization.

- I only want to receive e-mail about AAAS/*Science* activities, services, and publications.

**Mailing List Privacy**

Please check one:

- From time to time, AAAS/*Science* releases names and addresses to outside organizations for mailings that may be of interest. Income from the mailing list supports the activities of the Association and helps to keep member dues rates down.

- I want to receive mailings from outside organizations that AAAS/*Science* deems of interest.

- I only want to receive mailings from AAAS/*Science*. 
**Pacific Division Publications**

**wow!!! B I G Book Giveaway  wow!!!**

**Select Up To Any Three Books Listed Below for FREE***

**With this form only – 1 giveaway per person • Giveaway ends 1 May 2015**

*Does not apply to Art Inspired by Science.

'Must pay standard shipping – see below.

**Additional books at list prices.**

*Please PRINT CLEARLY or TYPE. If faxing, use black ink.*

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

Art Inspired by Science (2012; paper, 50 pp., 38 color plates – ISBN 978-0-9849880-0-7); $15.00

Biodiversity and Taxonomy (2005; paper, 236 pp. – ISBN 0940228-62-9); $35.00


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

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


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

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

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

Museums and Other Institutions of Natural History: Past, Present, and Future (2004; paper, 325 pp. – ISBN 0-940228-60-2); $35.00

San Francisco Bay: The Ecosystem (1996; cloth, 542 pp., color plates – ISBN 0-934394-11-3); $45.00

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

Proceedings Series

Meeting Program with Abstracts (Proceedings Vol. 1, Part 1, 1982 through Vol. 33, Part 1, 2014); $12.00 each

Evolutionists Confront Creationists (Proceedings Vol. 1, Part 3, 1984; paper, 213 p.); $12.00


California’s Master Plan for Higher Education in the Twenty-first Century (Proceedings, Vol 13, Part 2, 1996; paper, 118 pp.); $12.00

**Address orders to: AAAS, Pacific Division • Southern Oregon University • 1250 Siskiyou Blvd. • Ashland, OR 97520**

Phone orders: 541-552-6869 • dedicated FAX orders: 541-552-8457 • E-mail orders: aaaspd@sou.edu

**ALL SALES FINAL — NO RETURNS**

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

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Title</th>
<th>Price Each</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Shipping/handling fees:**

Domestic, $3.50 first book; $1.50 each add’l.
Non-U.S. addresses, contact us for cost.

**TOTAL**

**SHIPPING (see note to left)**

**TOTAL DUE WITH ORDER**

Ship To: ________________________________ Date __________

Address ________________________________

City __________________ State ______ Zip ______

Daytime Phone __________________ e-mail __________________

**CREDIT CARD**

☐ Visa ☐ Master Card ☐ Discover ☐ American Express

Credit Card # ___________________________ Expiration Date ___________

Name on Card ___________________________ Signature of Cardholder

Complete Billing Address for Card ___________________________

Page 34

E-mail us at aaaspd@sou.edu
AAAS, Pacific Division
96th Annual Meeting
San Francisco State University
San Francisco, California
14 – 17 June 2015
PRELIMINARY ANNOUNCEMENT of SYMPOSIA,
FIELD TRIPS and OTHER EVENTS

SYMPOSIA
(a sampling; complete list starts on page 21)
• Library Science: Theory and Practice of Librarianship
• Climate Change, Infectious Disease, Math Education and STEM Careers in the Virtual Gaming WorldWhyville.net: A New Model for Engaging Children
• Science from Citizen Science
• Galápagos 2015: Science, Conservation, and History in the 180 Years Since Darwin
• Web of Causation: Using Multiple Perspectives to Study Local Health Disparities
• Advancing the Forensic Psychological Research Nexus Between Antiterrorism, Extremism, and Violence Against Police: A Lone Wolf Terrorist Perspective
• Biodiversity Science and Sustainability at the California Academy of Sciences
• Advancing Green Infrastructure for Habitat and Coastal Resilience
• Hot and Cool Bugs: Energetics and Thermal Tolerances of Insects in an Ecological Context
• Biodiversity of the Coral Triangle
• Advances in Human Evolutionary Studies: The Fossil and Genetic Evidence

FIELD TRIPS
(starting on page 19)
• Natural History of Marin County
• Plants and Plant Chemistry at the Regional Parks Botanic Garden, Berkeley
• Tiburon Uplands to the Romberg Tiburon Center on San Francisco Bay
• Back to the Future: A Visit to China Camp State Park

NOTE: These programs are being planned as of 5 January 2015. However, changes in offerings frequently occur. For up-to-date information, please visit the Pacific Division website, pacific.aaas.org