Annual Meeting of the Pacific Division of AAAS
including the
California Academy of Sciences
Northwest and Southwest Regions of Sigma Xi, The Scientific Research Society
being held on the campus of the
SAN FRANCISCO STATE UNIVERSITY, SAN FRANCISCO, CALIFORNIA
14 – 17 June 2015

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

see ANNUAL MEETING, page 11
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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.

see HISTORY, page 4
Executive Director’s Report on the 181st National Meeting of AAAS, Including the Council Meeting
12 – 16 February 2015
San José, California

The 181st national meeting of AAAS was held recently in the San Jose McEnery Convention Center in San Jose, California.

You may remember my comments the last couple of years about the cold, snowy, stormy weather that surrounded the annual meetings. This year could have been more of the same, with record snowfalls being recorded in Boston and much of the eastern seaboard being pummeled with storm after storm. However, this being the west coast year for the meeting, we were greeted with weather in the mid-60s and sunny skies. While that didn’t do much for the draught California is in the midst of, it did brighten the spirits of meeting attendees.

Thursday morning, my colleagues from the Arctic and Caribbean Divisions and I had the opportunity to report to the AAAS Board of Directors on activities of the Divisions during the previous year, plans for this new year at the end of our time, a brief discussion of how the Divisions might help to further the mission of AAAS as the organization goes through the implementation phase of its re-invisioning process. You may have noticed that I didn’t mention SWARM, the Southwest and Rocky Mountain Division. More will be said about SWARM at the end of my report on the Council meeting, which begins on page 10 of this Newsletter.

Although there were many activities scheduled on Wednesday and all day Thursday, the Annual Meeting was officially called to order Thursday evening with the fanfare and feasting that Annual Meeting attendees have become accustomed to over the years. After several introductions, AAAS President Gerald R. Fink (Margaret and Herman Sokol Professor of Genetics, Massachusetts Institute of Technology) kicked off the meeting with his Presidential Address, followed by see DIVISION ACTIVITIES, page 8

GALÁPAGOS SYMPOSIUM
PLANNED FOR THE ANNUAL MEETING
Description begins on page 25.
A full listing of presenters and their abstracts should be available on the Division’s SYMPOSIAS web page, http://associations.sou.edu/aaaspd/2015SANFRANCISCO/Symposia15.html, by the fourth week in April. The following individuals have confirmed their interest in presenting:

Kate Huyvaert (Colorado State University, Fort Collins)
Robert W. Tindle, et.al. (University of Queensland, Brisbane, Australia)
David J. Anderson, et.al. (Wake Forest University)
Amy Macleod (University of Bielefeld, Germany)
Sarah Knutie (University of Utah)
Arkhat Abzhanov (Harvard University)
George Heimpel (University of Minnesota)
Maxine Zylberberg (UC San Francisco)
Richard Knab (Galápagos Conservancy)
Swen Lorenz (Charles Darwin Foundation, Santa Cruz Island, Galápagos)
Terri J. Maness (Louisiana Tech University)
Patricia G. Parker (University of Missouri - St. Louis)
Kenneth Petren (University of Cincinnati)
Elizabeth Hennessy (University of Wisconsin, Madison)
William H. Durham (Stanford University)
Matthew J. James (Sonoma State University)
Kim Engie (University of North Carolina at Chapel Hill)
Jen Jones (Galapagos Conservation Trust)
César Viteri Mejía (Conservation International, Puerto Ayora, Santa Cruz, Galápagos)
Mike Jackson (St. Michaels University School, Victoria, BC)
Sandra Jiménez Noboa (Universidad Autónoma de Madrid - Spain)
Susana Cardenas (Charles Darwin Foundation)
Alex Hearn, et.al. (Turtle Island Restoration Network)
Bruce D. Barnett (Environmental Consulting & Regulatory Compliance Services)
Natasha Sherman (Indiana University)
Paul Wolf (Utah State University)
Brian Arbogast (University of North Carolina)
Christine E. Parent (University of Idaho)
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 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 earliest institutions of its kind in the United States.

**Studets Take Note!**

The Pacific Division has a website for students, called STUDENTS ONLY! Its address is [http://associations.sou.edu/aaaspd/Students/Students.html](http://associations.sou.edu/aaaspd/Students/Students.html). On it you will find links to information about:

- the AAAS, Pacific Division Alan E. Levi- ton Student Research Awards
- travel grants to help support students traveling to present their research at annual meetings of the Pacific Division
- the Pacific Division student oral and poster presentation awards program
- winners of previous student presentation competitions
- additional news of interest to students

Research grants of up to $750 are available to students residing in the Pacific Division’s geographical boundaries. But you must apply for this by 1 May 2015! Information can be found at [http://associations.sou.edu/aaaspd/Students/StudentResearchGrants.html](http://associations.sou.edu/aaaspd/Students/StudentResearchGrants.html) or click the Research Award link on STUDENTS ONLY!

Travel grants of up to $150 to help support student travel to the annual meeting are available...but you must apply no later than 1 May 2015! Information can be found at [http://associations.sou.edu/aaaspd/Students/TravelGrants2010.html](http://associations.sou.edu/aaaspd/Students/TravelGrants2010.html). Or click on the Travel Grant link on STUDENTS ONLY! Up to ten grants are available this year and they will be awarded based on need.

Awards of Excellence are given to students who make outstanding presentations at the Pacific Division’s annual meetings. Awards include money and certificates. But you must present your own research in order to be in the competition pool to receive one! Information can be found at [http://associations.sou.edu/aaaspd/Students/StudentAwards.html](http://associations.sou.edu/aaaspd/Students/StudentAwards.html) or click the Student Awards link on STUDENTS ONLY!

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1 See HISTORY, page 6
The California Academy of Sciences is now a cutting-edge research and museum facility residing in the largest LEED (Leadership in Energy and Environmental Design) Platinum-rated (the highest rating) building in the world. It is also the largest green museum in the world. Although the Academy is now a single structure, it contains multiple venues, including a 500,000 gallon aquarium, an all-digital planetarium, the Kimball Natural History Museum and a 4-story rainforest. In addition, there’s a new 3-D theater, a lecture hall, a Naturalist Center, two restaurants, an adjacent garden and aviary, a roof terrace, and an Academy store.

The Academy is home to more than 40,000 animals, more than six times the number calling the Academy home in the previous collection of buildings. The new building also houses the Academy science labs and administrative offices, including an extensive library and scientific archive consisting of more than 20 million specimens.

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 – 1929, Arthur G. Vestal, Biology; 1930 – 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.

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.

The 1989 Loma Prieta earthquake caused major structural damage to the building, leaving the Academy in need of a new beginning. The Academy took advantage of this unique opportunity and rethought the Academy and the entire museum-going experience. The result was the closure of the Academy in 2003 and the moving of many exhibits to a temporary location at 875 Howard Street to allow for the razing and construction of an entirely new facility designed for the 21st century. After razing all but two walls of the African Hall, construction on the new, almost $500,000,000 structure began in September, 2005. The grand reopening of the Academy was 27 September 2008.

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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.
Funding received from AAASPD was used for supplies to help stock the cryptotephra extraction lab at UNLV for use in the project of locating volcanic glass shards from archaeological deposits at Pinnacle Point cave 5-6 in Western Cape, South Africa. $525 was used to obtain 1 liter of Lithium Metatungstate for use in heavy liquid separation. The remaining $75 went towards buying consumable supplies for the lab, including centrifuge tubes, and HCl for use in the separation process.

At the time of the award and the AAASPD conference in Las Vegas, preliminary work on the project revealed several small rhyolitic glass shards with chemistry similar to the Youngest Toba Tuff (YTT) from within sedimentary deposits around 70-75 ka. If the rhyolitic material formed a layer within the sediment (a cryptotephra or “invisible” layer), it could be used as a relative dating tool to corroborate the OSL (Optically Stimulated Luminescence) ages for the site and, if from Toba, would be the most distal deposit of the YTT found to date. Work so far on the project has included using acid and heavy liquid separation to better isolate rhyolitic glass shards from samples from PP5-6, microprobe analyses on the rhyolitic glass shards, opal-like grains, and phytoliths, further sampling of the site (PP5-6), and Raman and Infrared spectroscopy of the opal-like grains.

Further work has shown that the quantity of volcanic glass shards within the sedimentary deposits is extremely low at PP5-6, below the usual limit for considering it a cryptotephra layer. However, some recent publications discussing cryptotephra in sand dunes and archaeological deposits have used quantities similar to what is found in PP5-6. Besides rhyolitic glass shards, another interesting material was discovered in the sediment. This opal-like material has an appearance similar to the rhyolitic glass but microprobe analyses show that it is mostly silica with a few percent of aluminum and sodium. Due to the discovery of this material, the project has taken several interesting turns. Preliminary rhyolitic glass counts included opal-like material since the two cannot be definitively distinguished from each other without doing chemical analyses. Because of this, the shard frequency profiles used to determine where a cryptotephra layer might be located showed a broad distribution that is usually interpreted as mixing or some sort of disturbance of the sedimentary deposits. Discovering the opal-like grains and removing them from the profiles has revealed a distinct peak where rhyolitic glass shards have been found. Future work includes isolating more rhyolitic shards from this area for analysis to better determine if they are from Toba and collecting samples from other sites to see if the shards are present elsewhere and if they can be found in greater quantity.

Image of an analyzed opal grain under plain light.

BSE image of one of the analyzed rhyolitic glass shards.
the grand Presidential Reception. A flurry, nay, full-blown blizzard of activities occurred in the following days, as the meeting hit San Jose with full force. Of particular interest were the daily plenary lectures, featuring Daphne Koller (President and Co-Founder of Coursera) presenting her talk, *The Online Revolution: Learning Without Limits*, David Baker (Professor of Biochemistry, University of Washington), presenting his talk, *Post-Evolutionary Biology: Design of Novel Protein Structures, Functions, and Assemblies*, Karl Deisseroth (D.H. Chen Professor of Bioengineering and Psychiatry and Behavioral Sciences, Stanford University) presenting *Optical Deconstruction of Fully-Assembled Biological Systems*, and Neil Shubin (Professor of Organismal Biology and Anatomy, University of Chicago) presenting *Finding Your Inner Fish*. These plenary lectures were complemented by a number of topical lectures: *Human Genome Sequence Variation and Disease* by David Altshuler (Executive VP of Global Research, Vertex Pharmaceuticals); *Humans are Intent Detectors: Implications for Society* by Susan T. Fiske (Eugene Higgins Professor of Psychology and Public Affairs, Princeton University); *Science: Why Should They Believe Us?* by Naomi Oreskes (Professor of the History of Science, Harvard University); *Antimicrobial Resistance: A Rising Global Threat* by Sally Davies (Chief Medical Officer and Chief Scientific Adviser, Department of Health, U.K.); *Emerging Concepts in Chronic Traumatic Encephalopathy* by Ann McKee (Professor of Neurology and Pathology, Boston University School of Medicine); *The Science of Grammar and Vice Versa* by Geoffrey Nunberg (Adjunct Professor of Information, University of California, Berkeley); *Darwinian Evolution and Human Race* by Paul Farber (Distinguished Professor Emeritus, Modern Life Sciences, Intellectual History, Oregon State University); and *Why Science In, With, and For Africa Matters* by (Naledi Pandor (Minister of Science and Technology, South Africa). Accompanying these talks were 160 or so symposia covering a plethora of subjects as well as twenty-two career workshops, a full schedule of section meetings, and a variety of receptions and other programs.

AAAS Membership surprised many people in the exhibit hall Friday morning with a Member Appreciation Breakfast from 9:00 a.m. to 10:00 a.m. The buffet service included a nice selection of eggs, sausages, bacon, pastries, a variety of juices, coffee and tea. We were especially delighted because the set-up was right in front of the Pacific Division booth, the most perfect placement they could have done in the entire exhibit hall! Membership continued to surprise everyone with food at two additional times during the day. Thank you Ian and the entire Membership crew!

By the way, did I mention that the Division had a booth at the meeting, continuing our tradition since the national meeting in Boston in 2002? As usual, it was staffed by AAASPD Executive Assistant Angie Christianson. Since she is in charge of the booth, she also gets to decorate it. With out meeting in San Francisco this year, the theme was Chinatown, with dragons, lanterns, fans, etc., adorning the bare curtains of the booth. If you take a close look at the photo, you’ll see not only those decorations, but also stacks of books from the Division’s publications program. We were able to give away for free (yes, for free—see page 38 of this Newsletter if you’d like to get in on some of the freebies) a total of 147 copies from a selection of ten of our titles in stock. These were gone by the mid-point in the meeting, so we could have given away a lot more, but neither did we bring them with us nor would we have been able to get them into the exhibit hall due to union rules regarding bringing materials in. Fortunately, I didn’t know the rules when we unloaded and was not pinned down until all of the boxes of books were in our booth. Whew! We are planning to bring more books for free distribution to
In the natural environment, there is considerable spatial heterogeneity in temperature. Since phenologies of many organisms are influenced by the temperature, thermal heterogeneity in the environment sometimes leads to seasonal asynchrony of organisms across habitat patches. Phenological asynchrony of organisms may prolong and strengthen certain species interactions which otherwise would be ephemeral and weak.

The mayfly *Ephemerella maculata* rears and emerges from sunlit mainstem rivers, flies into dark, unproductive tributaries, oviposits, and dies. While each adult *E.maculata* lives only for a few days, the migration of adult *E.maculata* to tributaries lasts for about a month due to their asynchronized emergence from the mainstem. Their mass migration subsidizes tributary predators that would otherwise be food-limited. Field manipulative experiment has shown that the one month long resource subsidy by *E.maculata* in summer significantly increases the growth of the juvenile steelhead rearing in the tributaries (Uno and Power unpublished). We hypothesized that spatial heterogeneity of water temperature in the mainstem river causes the spatial variation in the emergence timing of *E.maculata*, leading to asynchronous *E.maculata* adult migration to tributaries, and that the prolonged resource subsidy increases the trophic efficiency, and consequently the total growth of juvenile steelhead trout over summer.

In sunny channel of the South Fork Eel River in Northern California, we have detected up to 5°C differences in daily maximum temperature within a 300 meter reach during summer low flow. In 2014, I investigated the effect of the spatial variation in the water temperature in the mainstem river on the emergence timing of *E.maculata* by incubating 600 individual *E.maculata* nymphs in flow-through buckets placed in various parts of the mainstem river channel with different temperature, and monitoring when *E.maculata* emerged from the buckets.

*E.maculata* nymphs were naturally distributed at all reaches we conducted experiment, and the nymphs used for the experiment were captured at each location. *E.maculata* incubated in warmer reaches emerged 1-3 weeks earlier than the ones incubated in cooler reaches of the mainstem. At each location the emergence lasted approximately two weeks, while overall emergence from the mainstem was twice as prolonged, due to asynchronous temperature-mediated emergence. The adult *E.maculata* migration were observed in the tributaries for four weeks for the same period while *E.maculata* emerged from the buckets, indicating that the adult *E.maculata* migrating into tributaries come from various parts of the mainstem with various temperature regimes, earlier from warmer reaches and later from cooler reaches.

The effect of the subsidy duration on the growth of juvenile steelhead trout in tributaries will be examined by a large scale field experiment in summer 2015. We predict that the temporal extension of the subsidy period increases the efficiency of trophic transfer to juvenile steelhead trout and other recipient consumers in tributaries. The linkage of the spatial heterogeneity to the temporal duration of subsidies by the phenology of mobile organisms is infrequently quantified, but is likely of general importance. Dynamic consequences of multi-scale spatial heterogeneity in temperature and other environmental controls over ecological interactions in natural landscapes need more attention.

The field rearing experiment described above was supported by the funding by Alan E. Leviton Student Research Award from AAAS, Pacific Division. I thank Alan E. Leviton and the AAAS Pacific Division for the financial support for this project. 
the meeting in San Francisco this June and those who show up earliest will have the best selection!

One of the highlights of the national meeting for the local community is Family Days, which takes place on Saturday and Sunday of the meeting. As the name implies, many different organizations such as local museums, educational institutions, and others like NASA bring in booths geared toward families and especially children. Family days started at the last AAAS meeting in Seattle, and has grown year by year, both in attendance and also in the number and quality of booths. I especially enjoyed this year’s program, as there was lots of room to spread out and there were kids all over the floor in several booths enjoying a variety of exploratory activities. The composite photo of this event gives one a small glimpse into the hectic and often chaotic-seeming activities of the day. It was great!

The Pacific Division was very capably represented in the poster sessions by our two AAAS–Larus Student Travel Award Winners from our meeting last June in Riverside. On Saturday, Ms. Bethany G. Caulkins (Department of Chemistry, University of California, Riverside) presented her poster, *NMR Crystallography in the Enzyme Active Site of Tryptophan Synthase* in the General Poster Session. On Sunday, Mr. Campbell Dinsmore (Department of Mechanical Engineering, University of California, Riverside) presented his poster, *The Subtle Effects of Air Lubrication: Micro-Bubbles and Enhanced Control of Ship Dynamics* in that General Poster Session. Both students reported numerous conversations regarding their work and were much appreciative of the opportunity offered by AAAS to present their research projects in this venue.

All in all, this year’s meeting in San Jose was a very good meeting and certainly a very good place to be as San Jose was so kind to us with the warm days and cool nights.

On to the Council meeting.....

Every year the AAAS Council meets on Sunday morning of the national meeting. This year’s meeting was pretty reflective of the usual meeting with a parade of reports. To save readers that have gotten this far in my report any additional fatigue, I’ll only report on items that I believe are of general interest.

Gerald Fink, AAAS President, reported on Board activities of the past year, stating that the Board was involved in two major activities: the transformation process, which is on-going and includes the new online journal, SCIENCE Advances which was formally launched at this meeting in San Jose, and the hiring of the new CEO and Executive Publisher for AAAS.
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 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 31 of this Newsletter.

Societies and Pacific Division Sections
Sponsoring Sessions at the San Francisco Meeting

California Academy of Sciences
Sigma Xi, The Scientific Research Society
Agriculture, Food and Renewable Resources
Anthropology and Archaeology
Atmospheric and Hydroospheric 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 35 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 students; 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 2 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 5 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.

1Students receive a one-year student membership in AAAS, which includes all member benefits including on-line access to Science magazine, with payment of their registration fee for this meeting. Current student members will receive a one-year extension to their membership. Filled out membership form must accompany registration form.

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By now, everyone knows that person to be Rush Holt, former member of the House of Representatives from New Jersey’s 12th congressional district from 1999 to 2015. [As an aside, I had the opportunity to meet and speak with Dr. Holt for a few minutes and found him to be very personable. I also liked his initial approach to easing his way into AAAS.] Dr. Fink noted that the Board chose to utilize funds from AAAS endowments to fund the transformation process rather than squeezing all of the programs in order to find the necessary $25 million or so required for implementation over the next five years.

In his final CEO report, Alan Leshner noted that attendance at the San Jose meeting was likely to set a record of about 10,000. This included meeting, press, and Family Days registrants. Dr. Leshner then announced the appointment by the Board of Stephen Fodor to help with expansion of AAAS membership in industry, and the appointment of Kent Anderson as the new publisher for the Science family of journals. He also mentioned, among other things, the presence of a climate change portal on EurekAlert, a recent MOU between AAAS and the Cuban Academy of Sciences in order to make it easier for Cuban and American scientists to collaborate, and the SSE STEM Volunteers program, which has reached its 10 year anniversary.

Dr. Leshner then moved on to an update on the transformation initiative, noting the following. 1) The core assumptions of the initiative are that the mission of AAAS and its over-arching goals will remain the same, and that AAAS will remain a multidisciplinary, membership society. 2) The two major strategic directions of the initiative are for AAAS to become a multi-media, multi-platform scientific communication enterprise and for AAAS to become a more member-facing organization than it presently is. 3) The transformation initiative involved a) becoming a “digital-first” enterprise (hiring of a new chief digital officer; redesign of the Science website; Trellis, a social networking website for scientists); b) becoming a more member-facing organization (remain mission driven but move from staff-driven to member-facing by listening to and trying to do a better job of meeting the needs of its members); c) exploring new businesses and partnerships; and d) a five year transformation plan and budget investment (see earlier comments).

The membership goal is 500,000 (currently about 120,000), a new chief membership officer is being hired to help with this. For advocacy, new staffers are being/ will be hired to support R&D analyses and government relations, along with the development of webinars on these topics. To aid with career development, myIDP (my Individual Development Plan) is being developed to help young PhDs and other scientists explore career options. For social networking, Trellis was introduced at
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 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 unused 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 34 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 34 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 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, DoubleTree 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.

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 Way until it ends and then make 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 Way until it ends and then make 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 Ave/Hwy 1 and then bear to the right onto the ramp to Brotherhood Way. Follow Brotherhood Way until it ends and then make 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 Way until it ends and then make 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, be sure to keep an eye on the time in order to not receive an overtime 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 39 of this Newsletter). When parking, be sure to not park in Lot 19, which is also in the parking structure! Level 4i Orange 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

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this meeting and is continuing to undergo development as a portal for networking among scientists and others.

Rob Covey, Chief Digital Media Officer, reported on the Digital First Initiative, talking about websites, newsletters, news quizzes, Facebook, Twitter, video series (such as five videos currently available on women in science), and iPad apps. Lots is going on in the digital world at AAAS!

Marcia McNutt, Editor-in-Chief of the Science family of journals reported on two things of particular interest relating to the journals. First was the reproducibility initiative in preclinical research to which over 75 editors representing over 120 journals have signed on. There are three tiers of transparency in this initiative. The first and lowest level tier is to ask authors to declare completely what they did as part of the project. The second tier is to ask authors to conform to a community standard. The third and highest tier is for a journal to verify that the level 2 standard is followed. Journals can currently choose which of the three levels they will operate under.

Second, Dr. McNutt discussed the new open access journal, Science Advances, which launched on 12 February 2015 with seven deputy editors and in excess of 50 associate editors. She said it is expected there will be approximately 50 submissions/week by the end of the first quarter. The goal is to have first decisions made by 45 days from submission. The initial average acceptance rate is about 7% with the goal of increasing the acceptance rate as the quality of submitted papers increase. The nominal fee for submission is $4,000, not including discounts for being a AAAS member, the submitter’s institution having institutional site licenses to various Science journals, etc. It is expected that the average author charge will be around $1,500 when all discounts are taken into account. Dr. McNutt stated that AAAS doesn’t want author charges to be a barrier to the publication of papers.

Moving on, Josh Freeman, Senior Advisor, Multi-Media Strategies at AAAS, presented the new social networking program called Trellis. Once fully implemented, Trellis will be available to everyone, with no AAAS affiliation required. The web-based program is designed to allow users to discover new people, information, etc., engage, and collaborate with each other. Key features are professional profiles, news feeds to help users find information, groups (closed or open, any size, heirarchial or independent, started by organizations or individuals), discussions and questions/answers, events (audio, video, web chat including document presentation), and document management and collaboration (accessible anywhere, allows comments and annotations). Trellis is under development with implementation in stages throughout the year. People can start exploring Trellis at https://www.trelliscience.com.

Skipping over some additional staff reports, Dr. Fink reported that the Committee on Sections created a subcommittee to examine the process for electing candidates for leadership offices and also was reviewing the process for fellows nominations, noting disagreement over the four year AAAS membership requirement that was adopted at a recent Council meeting. He further reported that the “Committee on Council Affairs (CCA) approved the creation of a subcommittee to review the Fellows nomination, review, and election process. Nominations for subcommittee members will be solicited, and the CCA will select members to comprise the subcommittee. Recommendations will be reported back to the Council.”

Near the end of the meeting, the emphasis turned to action items for the Council, three of which were presented: 1) based on their request, the International Technology and Engineering Educators Association (ITEEA) was unanimously accepted as affiliates with AAAS; 2) the by-laws of the Pacific Division were unanimously modified to enable electronic voting by its Council and Executive Committee and also to change language relating to the annual audit of its finances; and 3) due to the inability of the Southwest and Rocky Mountain Division (SWARM) to hold annual meetings in three of the last four years, the failure of the SWARM Executive Committee to address any of the governance and fiscal concerns raised by AAAS in 2011, 2012 and 2013, and the present lack of a President or Executive Director, the Council unanimously voted to declare SWARM an inactive Division “to allow both the Board and Council time to further study the viability of this Division.”

Hearing no new business from members of the Council, Dr. Fink adjourned the meeting just before noon.
This is the start of something big.

Introducing Science Advances – the new, online-only, open-access journal from Science and AAAS. Find out how you can be among the first authors published at scienceadvances.org.

Visit us at http://pacific.aaas.org
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.sfsu.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 Division’s 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 Hensill, Thornton, and Science Halls. All meeting rooms will be equipped with computers running Windows and Microsoft PowerPoint, as well as computer projectors. Speakers 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 Pacific 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 Windows 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 Windows 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 symposium 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 submission 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 prepared 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 exclamation or question mark, in which case there is no comma.

**Authors’ Names:** If there is more than one author for the presentation, 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 bracket 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 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 the following:
Formatting an Abstract for Submission to a Pacific Division Section Chair and the AAASPD Meetings Office, SAMUEL P. KRAFTER*, YESIMAN AUTHOR†, and IDIDA DeREADING‡ (†Department of Biology, Southern Oregon University, Ashland, OR; spkrafter@biology.sou.edu, yesauthor@gmail.com; ‡Department of Academic Speech, Bureau of Speech Employment, Medford, OR; ideread@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/

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 31 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 31 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), 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/aaaspd/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 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 Theatrical Performance.**

**Sunday Evening SFSU President's Reception following the theatrical presentation.** This event, hosted by SFSU President Julian Wong, is open to all meeting registrants and their guests. Please be sure to wear your meeting badge!

**Monday evening program at the California Academy of Sciences,** to include tours of the facility and a reception. Doors open at 6:30 p.m., followed by the AAASPD Presidential Address at 7:00 p.m., then a reception hosted by the California Academy of Sciences and free time to wander the Academy facilities and/or take special “behind the scenes” tours of the Academy. The evening is expected to end at 10:30 p.m. This event is open to all meeting registrants and their guests. Be sure to wear your meeting badge, which is your ticket in!

**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 non-alcoholic 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 9:30 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 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 insure that the replacement is comparable to or better than that which is listed above. Banquet tickets are $40 each and should be purchased on the Advance Registration Form (see page 35 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 35 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 the Blakeslee Room in Thornton Hall 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.
Meet the team and discover how Trellis is changing scientific communication:

Thursday, 2/12: 3pm, Room 210AB, San Jose Convention Center
Friday 2/13: Social Media Soiree, Invitation Only
Friday 2/13 - Monday 2/16: AAAS Square in the Exhibit Hall

Visit us at http://pacific.aaas.org
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.

Monday Noon Public Lecture
Monday Evening AAASPD Presidential Address (at the California Academy of Sciences).

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.

WORKSHOPS

The following workshops were being planned as of 1 April 2015. For the most up-to-date information about workshops for this meeting, please access the Division’s WORKSHOPS web page at this URL: http://associations.sou.edu/aaaspd/2015SANFRANCISCO/Workshops15.html.

Sunday afternoon, 14 June. Saving Scientists from Themselves. Organized by Rodger Bailey (Bailey-Group International, American Institute of Applied Politics; rodgy@me.com).

Scientific research has experienced a sea-change of public policy challenges over the last five years. Given the challenges still to come – economically, politically and culturally – scientists who depend on public, private and non-profit support and who are impacted by government regulatory oversight must become much more proactive in affecting the public policy or risk become irrelevant.

While most of these challenges are out of the hands of the scientific community, how they deal with these challenges are well within their perview. However if the past is any indication, scientists and their supportive institutions have at best been more than a bit negligent in affecting the public policy arena and at worst they have exhibited a high level of “tone-deafness” to the realities of the public policy making process in this country and its impact on their research and livelihoods.

Scientists must appreciate two absolute truths: 1) Most academic-based scientific research depends on the good graces of our public policy making process and the American investor (tax payers). Scientists who dismiss this do so at their own professional peril. 2) The proper funding of academic-based scientific research is probably one of the most critical operations our public policy making process can support.

The overall objective of this program is to “help scientists to help themselves.” This can be done by giving them a better understanding of the public policy making process and to give them the tools to proactively and positively affect that process for their own advancement and the good of every American.

One of the great things about our Republic – contrary to most folks impression – is that a small group of motivated individuals, with an understanding of the process and knowledge (tools) about how to affect that process, can make a major difference for their cause in a very short time period.

Objectives of the program are to give participants
• an understanding the American public policy-making process;
• insight into the drivers and trends that influence the American public policy-making process; and
• some basic tools (strategies and tactics) that they can employ to benefit their own situations.

Pre-workshop preparation. A survey instrument will be sent to conference attendees to get a basic SWAT (strengths, weakness, opportunities and threats) public policy analyses to better prepare and focus the workshop instruction and material to their individual realities.

Post-workshop follow-up. Given the scope of the subject matter, it is not possible to cover all of the material within a half-day workshop so AiAP™® will provide program participants and other interested AAASPD members ongoing tutorial and support programs.

Please access the Division’s WORKSHOPS web page, http://associations.sou.edu/aaaspd/2015SANFRANCISCO/Workshops15.html, for additional information about this workshop.

Sunday afternoon, 14 June. Organizing the Whyville Association for the Advancement of Science (WAAS): How Would You Engage Millions of Tweens (78% Girls) in Science Advocacy using a Virtual World? Organized by: James M. Bower (Numedeon Inc.; jim@numedeon.com) and Connie Calderon-Jensen (Program Outreach Coordinator, School of Medicine, University of California, San Francisco; conniecal2001@yahoo.com).

Whyville.net was launched more than 15 years ago by former Caltech faculty and students to explore the use of virtual worlds and games to engage children in learning with a particular focus on Science, Technology, Engineering and Math (STEM). Now with more than 8 million cumulative registered 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. Whyville.net has been in discussion with the Pacific Division of AAAS about the possibility of creating an organization of children within Whyville that reflects the larger education, outreach, science policy and advocacy and public engagement missions of AAAS. This Workshop will start with a discussion of the ways in which Whyville is already involved in these activities through consideration of several specific projects including: “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. With this information as background, the workshop will then turn to considering participants’ ideas for the organization and launch of the Whyville Association for the Advancement of Science.

Monday morning, 15 June. Communicating Your Science to Everyone: Practical Tips for Memorable Messages! Organized by Dennis F. Magnan (Director, Chalk Talk Science Project, Santa Rosa, CA; dfmangan@gmail.com).

As a scientist, you rely on support from people eager to know who you are, what you do, what you’ve accomplished and why you do what you do. Effective communication impacts your ability to lead, get funding, teach and advance your career. In short, good communication makes you, your lab, your institution/company and all of science look good!

Too often we fail to explain our work in ways that make sense to non-scientists. To receive recognition, get a job or be promoted, thwart the anti-science movement and become a better teacher, you must communicate with diverse audiences. People eager to hear your message include students, colleagues, funding agency staff, philanthropists, legislators, university administrators, job search/award committees, news media, patients, family and friends.

You might already be a good communicator. Yet, we all can get better. Improving communication skills isn’t hard… it just takes some learning and practice. Public speaking can be very enjoyable and personally rewarding. In this very interactive workshop, you’ll (re)discover simple techniques that can make your talks come alive, and help you deliver powerful messages that impact your listeners.

You’ll learn about:

• Using improv and other techniques to energize your impromptu talks and overcome the dread of public speaking;
• Preparing awesome visuals to enhance your talks; and,
• Storytelling to inform and persuade.

As a science administrator and communication consultant, Dr. Dennis Mangan has been working with faculty and students for over 30 years to deliver clear, memorable messages and presentations. Join us in learning how to become an even better communicator, because…it’s fun and important for your career in science!


This workshop will clearly explain biomimicry and how to adopt it as the method of innovation, and why many industries are adopting it. We will share with real examples of products, solutions, and technologies that have emerged utilizing this methodology.

We will be explaining about the need and how to rethink our design strategy, by using nature as our design partner. The students will form teams and collaborate to design a structure for the hands-on activities which will clearly provide an opportunity to apply this newly learned methodology and provide a better understanding of the processes to achieve efficiency. This methodology can be adopted into any field/industry.

In this engaging workshop you will get a fresh perspective on how the world around us can, does, and should work. Students will leave with a clear understanding of the responsibilities when creating a solution or product.

Wednesday morning, 17 June. An Introduction to Grant-Writing for Foundations for those in the Sciences, Social Sciences, Education and the Humanities. Organized by Peter Kraus (Associate Librarian, University of Utah, J. Willard Marriott Library, 295 South 1500 East, SLC, UT 84112; Peter.Kraus@utah.edu).

Participants will review the process of writing effective grant applications and assembling a good proposal to foundations. The basic components of a competitive grant proposal will be presented including the common pitfalls to avoid in grant writing and submission. Appropriate project funding sources will be discussed as well as establishing positive sponsor relationships, satisfying sponsor requirements, and the proposal review process.

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-registered 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 35 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.

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.

(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 Sierra 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 nature 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...
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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 than current conditions.

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 16ff of this Newsletter. Should you prefer to present a paper in one of the contributed paper sessions, you should also refer to pages 16ff for instructions and also page 31 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) Boise Extravaganza in Set Theory (BEST). [Formerly Saving Scientists from Themselves, which was converted into a workshop (see workshop listings above).] Organizers: Liljana Babinkostova, Andres Caicedo, Samuel Coskey, and Marion Scheepers (Department of Mathematics, Boise State University, Boise, Idaho liljanababinkostova@boisestate.edu). Three day program, scheduled for Monday, Tuesday, and Wednesday, 15, 16 and 17 June.

This program is a continuation of the well-known conference BEST (Boise Extravaganza in Set Theory). BEST focuses on the mathematical discipline called Set Theory, and its applications in other disciplines in Mathematics. BEST, for its first nineteen years hosted in Idaho at Boise State University, has been a symposium at the Pacific Division annual meetings since 2013.

Set Theory is the mathematical foundation for the study of the infinitary objects that routinely arise in Mathematics and its applications, and in the mathematical sciences. Contemporary set theoretic research addresses basic questions about provability, consistency and independence, and the relative strength of postulates or hypotheses in mathematized scientific theories. The methods developed by set theory serve as powerful tools for applications in many other mathematical disciplines, including algebra, analysis,
combinatorics, complexity, topology and more.

The invited speakers for this program are successful set theorists from different career stages and will present high level scientific talks in several areas of set theory and its applications. The BEST symposium will also host contributed talks in Set Theory and its applications by participants. Undergraduate and graduate students will also present research accomplishments in these areas.

(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 scheduled for Tuesday, 16 June.

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) Coping with Climate Calamities: How the Humanities and Social Sciences Might Cure Our Eco-despair. [Formerly Climate Change, Infectious Disease, Math Education and STEM Careers in the Virtual Gaming WorldWhyville.net: A New Model for Engaging Children, which was converted into a workshop (see workshop listings above).] Organizer: Robert L. Chianese (Professor of English Emeritus, California State University Northridge, Northridge, CA; rlchianese@gmail.com).

Half day program scheduled for Tuesday morning, 16 June.

A June 2014 report by the American Psychological Association charts the ill effects of climate change on people’s emotional states. Beyond Storms and Droughts: the Psychological Impacts of Climate Change finds climate change causing a loss of social cohesion, as well as increased violence, crime, social instability, aggression, and domestic violence. On the personal level, the report discovers a deep “eco-anxiety” in individuals and cites a trio of disastrous symptoms—“helplessness, fatalism, and resignation.”

While scientists are busy analyzing climate change and suggesting and devising ways to ameliorate its worse effects, they rarely address the emotional and psychological component of our personal and communal sense of dread about our planet’s future. This sense of dread is particularly true of people who try to imagine our distant diminished future rather than those who have suffered a local environmental calamity. The arts, humanities, and social sciences need to attend to these large philosophic topics—that “fatalism and resignation” human beings often feel, now provoked by fears of climate change—and find ways to define, comprehend, and potentially ameliorate them.

The symposium seeks papers and presentations about efforts in the arts, humanities, and social sciences that address underlying psychological disturbances that originate from dread over far reaching climate disruption.

(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 scheduled for Monday afternoon, 15 June.

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, the first hour of our symposium will be very similar to other sessions of the conference, by presenting cutting edge, important research. We will then lead a discussion among participants about the dual, and sometimes dueling goals, of science and engagement in citizen science. Attendees and participants will then participate in the science they have just learned about. Toward this end, 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 scheduled for Monday, Tuesday, and Wednesday, 15, 16, and 17 June.

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 AAASPD 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 Biology, San Francisco State University, San Francisco, CA; marquez@sfsu.edu). Co-organizer: Kirsten Bibbens-Domingo (Professor of Medicine, Epidemiology, and Biostatistics, Center for Vulnerable Populations, San Francisco, CA; kdomingo@medsfgh.ucsf.edu).

Half day program scheduled for Tuesday afternoon, 16 June.

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. Bibbens-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 scheduled for Wednesday morning, 17 June.

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 scheduled for Monday morning, 15 June.

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...
Global Science Engagement

Science is a global endeavor that advances when knowledge is both generated and shared. Increasingly, scientists and engineers are working both within and outside of national boundaries on local and global issues.

Challenges necessitating innovation and international scientific collaboration are abundant in food and water security, sustainable development, infectious disease and health, climate change, natural disasters, and energy. Countries with varying levels of development, education, and scientific capacity may have different goals and expectations for international scientific engagement.

What elements make international collaboration successful and sustainable? What engagement opportunities are available, and what are the responsibilities of researchers, entrepreneurs, educators, and policymakers in global scientific endeavors?

Call for Symposium Proposals

Symposium proposals for the 2016 AAAS Annual Meeting are now being solicited. To submit a proposal, visit aaas.org/meetings. The deadline for submission is 24 April 2015.
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 scheduled for Monday afternoon, 15 June. 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; elgoldman@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 scheduled for Monday morning, 15 June. 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 scheduled for Tuesday afternoon, 16 June.

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 scheduled for Tuesday morning, 16 June.

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.

(13) Recent Advances in Pharmacology and Toxicology. Organizers: Kristen Mitchell (Department of Biology, Boise State University, Boise, Idaho; kristenmitchell@boisestate.edu) and Karen Parker (Chrysopyleas, Los Altos, CA).

Half day program scheduled for Tuesday afternoon, 16 June.

(14) Hot and Cool Bugs: Energetics and Thermal Tolerances 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 Williams (Department of Integrative Biology, University of California, Berkeley, CA; cmw@berkeley.edu).

Half day program scheduled for Wednesday morning, 17 June.

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: Terrence 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; rmmooi@calacademy.org and Meg Burke (Director of Teacher and Youth Education, California Academy of Sciences, San Francisco, CA; mburke@calacademy.org).

Full day program scheduled for Tuesday, 16 June.

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...
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 scheduled for Wednesday morning, 16 June.

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 scheduled for Tuesday morning, 16 June.

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.

(18) 3D Printing, Arduinos and other Open Source Tech in STEAM Learning. Organizers: Joan Horvath and Rich Cameron (Nonscriptum LLC, 155 N. Lake Ave., Suite 800, Pasadena CA 91101; joan@nonscriptum.com, rich@nonscriptum.com).

Half day program, scheduled for Tuesday afternoon, 16 June.

Shop class was traditionally a gateway into engineering, math, science, art and other fields, but many schools got rid of shop class because of perceived lack of student interest and concerns over liability. However, as shop classes have been fading away, there has been a resurgence of interest in making things. This interest is exemplified by the enormous success of “maker” type public events and the proliferation of makerspaces and hackerspaces. Could this mean that people are still interested in shop class, but a more modern version, incorporating 3D printing, Arduinos, wearable technologies, and the like?

But what is involved in using these technologies (like 3D printing, Arduino microprocessors, and wearable technologies) in the classroom? This session will describe the experiences of some early adopters, the cultural issues that arise when crossing over formal education and the hacker culture, and ways forward for educational institutions wanting to learn more about using these technologies for low-cost yet powerful applications in robotics, citizen science, concept visualization and more.

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 16ff. 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” 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.

**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: Chair: Dr. Sang-Hee Lee, Department of Anthropology, University of California Riverside, 900 University Avenue, Riverside, CA 92521. Contact: 951-827-4390; shlee@ucr.edu.

**Atmospheric and Hydrospheric 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; owenmcdougal@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; dallura@sou.edu and rockit526@gmail.com (copy e-mail to both accounts).

**Ecology, Environmental Sciences, and Sustainability.** Section chair and program organizer: Dr. Richard Van Buskirk, Environmental Studies, 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: Dr. Julia Ruppell, Department of Biology, Pacific University, 2043 College Way, Forest Grove, OR 97116. Contact: 503-352-3102; ruppell@pacificu.edu.

**General and Interdisciplinary.** 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@so.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; donaldmegrw@icloud.com.

**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@so.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; vgavalan@sandiego.edu.

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

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

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

Last 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 16 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 16 of this Newsletter) as a Word (.doc or .docx) or .rtf attachment to the chair of the appropriate society or section (see page 31 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.

Organize 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 31 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; spkraf@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!
```
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 organize your proposal 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: Title of proposed program
7: Brief description of proposed program (please limit to 250 words)
8: 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.
9: Number of 1/2-day sessions requested (a session is roughly three to three and a half hours, plus a mid-session break).
10: Pacific Division section(s) and/or affiliated society requested to sponsor this program (see page 31 of this Newsletter). Note: You must identify at least one section or society to sponsor your program.
11: If a symposium, do you anticipate having students make presentations as part of your program? If so, how many?
12: Do you have a need for a particular day for your program? If so, please rank the days 1 to 3, with 1 being your first choice and 3 being last choice (Wednesday, Thursday, and Friday) and explain.

541-552-6747 • rchristi@sou.edu • http://pacific.aaas.org
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 13 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 4 of this Newsletter for information about judging. If you check the “yes” box, you will be contacted for additional information.

Check any 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:

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| Spouse/Family        | □ $35.00             | □ $40.00           | □ $45.00 | ☐ Name, City, State (for name tag): __________________
| Emeritus/Retired      | □ $52.50             | □ $60.00           | □ $67.50 |

†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 37 of this Newsletter when you register for the meeting.

One-day of Meeting

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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 18 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 each entrée that you have chosen that you want to be GF.

Everyone complete next page before sending, calling, or faxing form. 
Students, complete third page in order to receive your AAAS membership!
C. FIELD TRIPS: All trips are priced per person (pp). See page 21 of this Newsletter for details.

Box lunch choice: □ meat sandwich □ vegetarian sandwich

**Sunday, 14 June**
- Field Trip #1 Natural History of Marin County __ tickets @ $50.00 pp $ _________
- Field Trip #2 Plants and Plant Chemistry at the Regional Parks Botanic Garden, Berkeley __ tickets @ $50.00 pp $ _________

**Thursday, 18 June**
- Field Trip #3 Tiburon Uplands to the Romberg Tiburon Center on San Francisco Bay __ tickets @ $55.00 pp $ _________
- Field Trip #4 A Visit to China Camp State Park __ tickets @ $55.00 pp $ _________

**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.

A. Registration Total $ _________
B. Banquet Total $ _________
C. Field Trips Total $ _________

**TOTAL DUE** $ _________

(Make checks payable to AAAS, Pacific Division or use your credit card – see below.)

D. 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 SFSU President's Reception (no charge to registrants and family members)
___ Monday Evening at California Academy of Sciences (no charge to registrants and family members)

E. WORKSHOPS: To help estimate the number of people planning to participate in workshops, please indicate which, if any, of these you intend to attend. See page 20 of this Newsletter for details.

SUNDAY: □ Saving Scientists from Themselves *NOTE: Meets Sunday afternoon at the same time as the Whyville workshop*
□ Whyville *NOTE: Meets Sunday afternoon at the same time as the Saving Scientists from Themselves workshop.*

MONDAY: □ Communicating Your Science to Everyone *Meets Monday morning.*
□ Rethinking Design Strategies by Adopting Nature’s Principles *Meets Monday afternoon*

WEDNESDAY: □ Introduction to Grant Writing *Meets Wednesday morning.*

**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 __________________

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**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.

**ScienceAAAS**

*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, __________

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**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 membership 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

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Select Up To Any Three Books Listed Below for FREE*!
With this form only – 1 offer per person • Giveaway ends 15 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 978-0-9849810-0-7); $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


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

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

ALL SALES FINAL — NO RETURNS
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Ashland, OR 97520

AAAS, Pacific Division
96th Annual Meeting
San Francisco State University
San Francisco, California
14 – 17 June 2015
ANNOUNCEMENT of SYMPOSIA, FIELD TRIPS and OTHER EVENTS

SYMPOSIA
(complete list starts on page 24 of this Newsletter)
• Library Science: Theory and Practice of Librarianship
• 3D Printing, Arduino and other Open Source Tech in STEAM Learning
• 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
• Theory, Experiment, and Computation: A Synergistic Approach to Research

FIELD TRIPS
(starting on page 21 of this Newsletter)
• 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

WORKSHOPS
(starting on page 20 of this Newsletter)
• Saving Scientists from Themselves
• Organizing the Whyville Association for the Advancement of Science: How Would You Engage Millions of Tweens (78% girls) in Science Advocacy Using a Virtual World?
• Communicating Your Science to Everyone
• Rethinking Design Strategies by Adopting Nature’s Principles
• An Introduction to Grant-Writing for Foundations for Those in the Sciences, Social Sciences, Education, and the Humanities

NOTE: These programs are being planned as of 1 April 2015. However, changes in offerings frequently occur. For up-to-date information, please visit the Pacific Division website, pacific.aaas.org