The Society for Integrative and Comparative Biology

SICB Newsletter

Spring 2012 Issue

INSIDE THIS ISSUE:

Experiences—A Full Circle or Attention Deficit Disorder?

by Robert Roer
Treasurer, SICB 2010-2013

The path I've taken through my scientific career has been anything but linear. While this may not be the best way to achieve a monolithic body of work in one's chosen discipline, it certainly has been fun. My route hasn't been a random walk, but it has been varied and diverse. If nothing else, I hope this piece will serve to show some benefits of following one's curiosity and not being afraid of treading into unfamiliar territory.

I started studying calcium transport in the green crab, *Carcinus maenas*, during my junior year at Brown University, working with Robert Prusch. Little was known about the role of the gut in ion uptake at that time, so I began a project to see if the midgut was involved. I carried on that research as I transitioned to my graduate career at Duke University under the guidance

Bob Roer dissecting newly molted blue crab cuticle in his "outdoor" laboratory.

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Science Among the Palmettos

by Ken Sebens, SICB President

For those of you who attended the meeting in Charleston in January, you probably thought you had landed back in Salt Lake City or Boston; it was that cold at first. But, a few days later, it was short sleeve weather. You were hanging out on the veranda, among the white columns, watching sailboats cruise through the harbor under a full southern sun as you enjoyed your mojitos. Well, most of you were actually at the meeting, and you had a great time talking serious science. The conference center was big enough to hold our largest meeting ever, without having the audience spill out into the hallways. Yes, we were a bit far from the historic center of Charleston, but there was a free shuttle service and other ways to get there, and I know many peo-

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Grand Challenges—Moving Forward

Our Society for Integrative and Comparative Biology is a partner in defining the Grand Challenges in Organismal Biology (GCOB) for the 21st Century. This initiative was started several years ago with encouragement from the NSF, and thus far has resulted in numerous perspective pieces published in *Integrative & Comparative Biology* and elsewhere. This past January at the annual meeting in Charleston, our plenary speaker was Dr. Margaret McFall-Ngai, from the University of

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Student/Postdoctoral Affairs Committee

Peggy Biga, Chair

SICB, 2012 in Charleston was a big success for SPDAC! Prior to the meeting, the committee put together a 'tips' sheet called 'Notes from the Above Ground' that was geared to aid our younger and novice meeting attendees. This tips sheet was posted on the meeting website for students to view. The committee hopes to get feedback from the students and postdocs about the usefulness of this document, as we plan to update and improve this tips sheet for each meeting.

In Charleston, we hosted a workshop on maximizing your potential through job applications and interview preparation. We introduced dos and don'ts in *curricula vitae* and other job application materials. In addition, we had break-out sessions for specific academic level job entry, as well as hosted several mock interviews. Several panelists were present to offer their expertise and advise, as well as serving as mock interviewers: Dr. Steve Kajiura, Florida Atlantic University; Dr. Heidy Contreras, University of La Verne; Dr. Tomasz Owerkowicz, CSU-San Bernadino; Dr. John Eme, University of North Texas; Dr. Marianne Porter, Vassar College; Dr. Tim Bradley, UC-Irvine; Jacob Musser, and Abigail Cahill. We had 78 participants and 4 major break out groups. We thank you all for your participation and making our workshop successful!

SPDAC discussed ideas for SICB 2013 workshops, setting up a facebook page, and having daily themes at the student/postdoc booth that will be in the exhibit hall in San Francisco. We will be asking for faculty participation at the booth, and at some point will pass along a sign up sheet for full members to devote/donate 30 minutes or an hour of their time (anytime from 1-4 pm on the 3 days we have the booth) to mingle with the students and postdocs, as well as offer advise on the daily topics. Further information will be passed along as more conversations are had.

We hope to see you all next year and hope you will participate in our events to continue the tradition of SICB being a great open venue for our younger scientists-in-training!

SICB News Stories by Student Journalists

The Public Affairs Committee announces that six new science journalism pieces about specific presentations at the Charleston 2012 annual meeting have been written by SICB students. These pieces will appear on the SICB web site and two are highlighted in this newsletter.

This science writing is the result of a new program that enables students (supported by SICB) to write original articles that highlight research presented at the SICB annual meeting. The inaugural crop of writers are Julie Charbonnier, Emily Elderbrock, Kara Feilich, Desmond Ramirez, John Whiteman, and Karen Word. Congratulations in advance for some very creative and interesting science writing!

Attention students! Look for notices in the fall about this program for the San Francisco meeting in 2013!

Two stories are highlighted here from the Charleston 2012 meeting:

A Stealthy Warning: The Black Widdow's Covert Color Communication, by Kara Feilich highlighting a talk given by graduate student Nick Brandley.

Out in the Cold: Birds of a Feather Responding to Weather, by Karen Word highlighting a talk given by graduate student Robert de Bruijn.

But we in it shall be remembered-

We few, we happy few, we band of colleagues

PRESENTING ON THE LAST DAY—BY FRANK FISH

This day is call'd the last of SIC-B.
He that orates this day, and comes safe home,
Will stand a tip-toe when this day is named,
And rouse him at the name of Charleston.
He that shall speak this day, and see tenure,
Will yearly on the meeting greet his fellows,
And say, "I was at SIC-B's last."
Then will he show his CV and flaunt his pubs,
And say, "These talks I had in Carolina."
Old profs forget; yet all shall be forgot,
But he'll remember with advantages
What talks he heard this day. Then shall our names,
Familiar in his mouth as NSF rejections,
Frank-E the Fish, Koehl, and McHenry,
Merz and Wilga, Williams and Lauder,
Be in their marked programs freshly rememb'red.
This data shall the good prof teach his charge;
And Charleston Caroline shall ne'er go by,
From this day to the ending of the world,
But we in it shall be remembered-
We few, we happy few, we band of colleagues;
For they to-day that speak their talks with me
Shall be my colleagues; be they feel inadequate,
This day shall add to their productivity:
And zoologists at Colleges now a-home
Shall think themselves accursed they were not here,
And hold their funding cheap whiles any speaks
That spoke with us upon SIC-B's last.

Mimi Koehl, the Last Presenter at SICB 2012 Charleston, is congratulated by Frank Fish.

Do you take it for granted that Annual SICB Meetings are a smashing success? Well, you shouldn't. Sue Burk has been the SICB Meeting Director for 12 years; she is a MAJOR reason for our success. Sue negotiated with hotels and convention centers and oversaw all the administration of the meeting associated with registration, room assignments, down to the coffee. This year SICB recognized Sue for her valuable service as she retires. But she leaves us in good hands with the people at Burk & Associates, Inc. We welcome Lori Strong, our new Meeting Director.

Thank you, Sue, for all your hard work and dedication. We will miss you!

'SICB Endowments make our programs possible.

Please consider a donation, however small, to your favorite endowment.

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on the SICB Home

SOCIETY'S FINANCES CONTINUE TO BE STABLE—
TREASURER'S REPORT, BOB ROER

Endowment

In 2002, SICB invested a total of $779,498 with a professional financial management group under the guidance of Matthew Tederick. On 31 December 2007, the account was worth $1,160,976. The stock market crash took its toll, and by 31 December 2008 the portfolio had decreased nearly $300,000 to end the year at $836,475. The stock market recovery has resulted in a substantial gain in the value of our endowment and, as of 02 December 2011, it was valued at $1,026,946. Although this represents only a 0.17% gain since this time last year, our benchmark index, the S&P 500 showed a 0.73% gain over the same period. Mr. Tederick has advised us to continue a conservative posture on our investments based upon his concern about potential sovereign and municipal defaults, and we currently hold just over half of our assets in cash and bonds.

Assets, revenues and expenses

The net assets of SICB, as of 30 June 2011, amounted to $1,611,815.76. This is an improvement compared to 30 June 2010 when net assets totaled $1,531,053. In addition to the unrealized capital gain, this improvement in our net assets is due to the responsible stewardship of the Society's accounts by the Finance Committee and the efforts of BAI to control the costs of our annual meeting. The result was that the Society ended the fiscal year $51,759.30 in the black; and that is before the addition of $116,895.76 in unrealized capital gains.

Realignment of revenue and expenses allowed for better analysis of SICB finances

With the assistance of BAI, we have made the transition that I began last year to bundle the revenues and expenses of the meeting (including the grants for symposia, the divisional budgets that largely support symposia and meeting socials, and that portion of the BAI fees that are directly involved with the meeting organization), and separate them out from the general ledger. This realignment will be reflected in reports on the 2012 budget and in the proposed 2013 budget. Although the report on the 2011 budget did not conform to the new accounting format, the annual meeting in Salt Lake City netted $19,702.60 after the meeting management fees were deducted. Although the latest balance sheet does not reflect the expenses for the 2012 annual meeting in Charleston, the record attendance resulted in record gross revenues of $347K.

The dues that were collected in FY 2011 again did not cover the administrative costs associated with the operation of the Society (less the meeting management portion of the BAI fee) to the extent of a $128K loss this past year. The cost of operating SICB was again brought into the black largely through the revenue we realized from the publication of our journal, *Integrative and Comparative Biology*, which showed a net revenue in excess of $236K.

Status of named endowments

The restricted endowment funds all reflected the increase in the value of our investment portfolio. However, donations were a bit lower this year than last, no doubt due to the continued slow pace of economic recovery. Some funds continue to be below the threshold for a stable endowment and others are being subsidized by the general operating funds. Of particular concern are the Moore Fund, which does not cover the costs of providing the lec-

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"SICB is committed to broadening participation in SICB and the life sciences."

BROADENING PARTICIPATION IN SICB 10TH ANNIVERSARY

Cheryl Wilga, Chair
Broadening Participation Committee

On Jan 4th, 2012, the regular, grant, and ex-officio members met and discussed several items regarding fine tuning the travel fellow application and administration process, workshop topics and social ideas. Regular members present were Cheryl Wilga. Grant committee members present were Cheryl Wilga, Michele Nishiguchi, and Brian Tsukimura. Ex-Officio Members present were Billie Swalla, Brian Tsukimura, and Jon Harrison. Members that were unable to come this year were Peggy Biga, Denise Dearing, Joan Edwards, Nora Espinoza, Greg Florant, and Scottie Henderson, hopefully we see you next year. Members rotating off this year are Denise Dearing, Joan Edwards, and Scottie Henderson. Thank you for your support! We welcome new members Rita Mehta and Andrew Clark.

A budget of $15,000 was approved for the 2013 meeting. Most of the budget will be used to fund the Travel Fellows, some will fund the BP social, and some will fund the workshop participants.

The travel award program was very successful again this year. We had 40 applicants and were able to provide funding to 22 of the applicants totaling $10,413. The second cohort of SICB Broadening Participation Travel Fellows are: Juan Aggio, Teresa Alexander, Kristin Andrykovich, Shawn Arellano, Elizabeth Borda, Rebecca Calisi-Rodriguez, Lina Ceballos, Sofia Chang, Andrew Clark, Patricia Cockett, Ruthsabel Cortes, Dennis Evangelista, Kevin Jagnandan, Jacqueline Moustakas, Andrew Nguyenba, Ijeoma Obi, Leah Parrilla , Maria Salica, Sharlene Santana, Gordon Taylor, Roldan Valverde, and Maria Vasquez. As part of the application process, Travel Fellows provide information for the committee to guide future efforts, such as suggestions for workshops and stating some challenges to being a scientist from an underrepresented group.

The Diversity Social was wildly successful again this year. A wonderful spread of tasty appetizers including smoked salmon, antipasto, roasted vegetables, caprese salad, brie in phyllo, petite quiches, and spanakopita, with soft drinks, water and a cash bar kept the attendees happy and chatting with fellow SICB members well into the night. Cheryl Wilga offered a welcome and thanked the fellows for their thoughtfulness in providing the committee with information that will guide future activities. In honor of the 10th Anniversary of the Broadening Participation Committee, Past-President and organizer of first Broadening Participation Committee Marvalee Wake spoke about the importance of integrating science and diversity. John Wingfield, Past-President of SICB and Assistant Director of the Directorate for Biological Sciences at the National Science Foundation, spoke next about NSF's commitment to increasing diversity. Of course the highlight of the evening was handing out the checks to the Travel Award Fellows, who were very appreciative of the support. The committee was touched again at the heartfelt thanks from the Travel Fellows, many of whom would not otherwise be able to attend, and we look forward to seeing them again at future meetings. Then Michele Nishiguchi announced a surprise gift to the Travel Fellows - Chuck Crumly, Science Publisher at the

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Broadening Participation Workshops in Charleston

1. Science is a Two-way Street: Mentorship and the Mentee

2. Demystifying the Grant Application

BROADENING PARTICIPATION IN SICB—CONT.

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University of California Press, donated a book of their choice from the catalog to each Travel Fellow! We sincerely thank Chuck and the University of California Press for the generous support of our fellows. The social was attended by NSF program officers (John Wingfield, Bill Zamer, Michele Elekonich), SICB presidents (Rich Satterlie, Billie Swalla, Marvalee Wake, John Wingfield, Dave Wake, John Pearse, Lynn Riddiford, Mike Hadfield, Sally Woodin, and Ken Sebens), executive committee members (Brian Tsukimura, Peggy Biga, Dianna Padilla) travel award fellows, Chuck Crumly, and many other members. Our sincere thanks to everyone who attended and helped make this annual event a success.

The most commonly requested workshops by the Travel Fellows were how to apply for grants for the beginner and mentor-mentee relationships. Therefore, the Broadening Participation Committee hosted two workshops. Science is a Two-way street: Mentorship and the Mentee" hosted by Michele Nishiguchi with Billie Swalla and Cheryl Wilga. The mentor and mentee are professional partners. As in all successful partnerships, both parties must want the relationship to work and be willing to commit time and energy to the process. Successful mentoring relationships are built on mutual respect and appreciation. A single mentor is unlikely to meet all the mentee's needs. This workshop helped to identify challenges such as time and energy, selecting goals and objectives, keeping momentum going, and giving effective feedback for both prospective mentors and mentees. The second workshop was "Demystifying the Grant Application Process" hosted by Cheryl Wilga. In this workshop Michele Elekonich, Program Director from the Behavioral Systems Cluster at the NSF spoke about grant writing and the review process at NSF that targets SICB members. Both workshops were very successful and well attended by around 90 members.

The SICB Broadening Participation grant committee, Michele Nishiguchi, Brian Tsukimura and Cheryl Wilga, remained in Charleston for another day after the annual meeting ended to work on the grant proposal that will be submitted to the National Science Foundation in 2012. If successful, the award would fund many more BP Travel Fellows, SICBmatch.com mentor-mentee match support (developed by Michele Nishiguchi), workshops, the BP Social, and more of our proposed activities for five years.

Special thanks to Michele Nishiguchi and Brian Tsukimura for their continuing advice and support. The BP committee thanks everyone who helped make our plans for increasing participation within the SICB a success.

Child Care at SICB

Child care was offered at the SICB annual meeting for the first time in 2012. Burk & Associates, Inc., the SICB management company, worked very hard to identify a reputable provider of services in Charleston.

There were 10 families that used the service for 12 children. The cost associated with this use was $926 and was paid by the people who used it.

Positive comments were received about having the service and for the service that was provided. Although it served only a few families, those that used the child care were glad that it was there.

We are grateful to BAI for their efforts!

Distilling Your Message—Public Affairs Workshop

The essence of communicating science clearly is to distill your message. This WAS the message at a workshop at the 2012 Charleston meeting organized by the Public Affairs Committee. The workshop was conducted by Christie Nicholson from the Center for Communicating Science at Stony Brook University, an organization that is dedicated to helping scientists communicate more effectively. Participants learned to craft short, clear, conversational statements intelligible to non-scientists, about what one does as a scientist and why it matters. The participants learned to translate technical material using examples and analogies to illuminate unfamiliar concepts.

SICB student members learn how to distill their message.

Christie Nicholson, Center for Communicating Science at Stony Brook University, tells SICB members how to distill their message.

EDUCATIONAL COUNCIL ACTION

Our meeting in Charleston this year began and ended with educational highlights. The opening undergraduate poster display enjoyed strong participation, featuring posters from 60 students (up from 42 last year), most of whom responded in a post meeting survey that the experience was valuable for practicing their delivery and meeting other students. The John A. Moore Lecture and end-of-meeting reception were once again extremely well attended. Our speaker, Dr. Brian Alters from Chapman University, regaled us with an "edutaining" look at the long-term conflict between science education and creationism.

Bob Podolsky (left) introduces the John A. Moore Lecturer, Brian Alters at the Charleston meeting.

The Educational Council is also pleased to announce the initiation of a new section of the SICB Digital Library devoted to invertebrates. We are looking for more content and of course also for new sections that pertain to other divisions of the society.

Check out a new section of the SICB web site under the Resources tab for Educational and Teaching Resources.

Finally, **update your SICB member information in the directory**, especially indicating information about your teaching. This is a new feature.

Bob Podolsky
(Chair.EdCouncil@sicb.org)

Deadlines:

Symposium Proposals — Aug 24, 2012

Abstracts for 2013 San Francisco Meeting — Sept 7, 2012

Strong Meeting Programs & Responses to Survey—*Jon Harrison SICB Program Officer*

First, let me start by saying that I am attempting to fill big shoes. Brian Tsukimura has done an outstanding job over the past two years as society program officer, capped by SICB's largest meeting ever in Charleston. We should all thank him for his outstanding service; as I'm finding out that he did a lot!

Second, I want to promote the outstanding set of symposia we have planned for the San Francisco meeting. It promises to be a wonderful set of diverse and forward-looking symposia, set in one of my favorite locations, with unexpectedly cheap hotel prices. Put this meeting on your calendar today (Jan. 3-7, 2013)! Here's the symposium list:

Society-Wide

- **When Predators Attack: Sensing and Motion in Predator-Prey Interactions,** Organizers: Matt McHenry and Stacy Combes
- **Vertebrate Land Invasions: Past, Present, and Future,** Organizers: Alice Gibb, Miriam Ashley-Ross, Richard Blob, Tonia Hsieh
- **Phenotypic plasticity and the evolution of gender roles,** Organizer: Janet Leonard

Divisional

- **Ecological Epigenetics,** *DEDB, DEE, DCE,* Organizers: Cristina Ledon-Rettig, Andrea Liebl, Christina Richards, Aaron Schrey, Armin Moczek
- **Keeping time during animal evolution: conservation and innovation of the circadian clock**, *DCPB, DEE, DNB, DIZ,* Organizers: Adam Reitzel and Ann Tarrant
- **Physiological Responses to Simultaneous Shifts in Multiple Environmental Stressors: Relevance in a Changing World**, *DCPB, DEE, DIZ,* Organizer: Anne Todgham and Jonathon Stillman
- **Understanding First Order Phenotypes: Transcriptomics for Emerging Model Systems**, *DEDB, DAB, DCE, DIZ,* Organizer: Suzy Renn, Antónia Monteiro, Arkhat Abzhanov
- **Integrating genomics with comparative vision research of the invertebrates**, *DIZ, DNB,* Organizers: Jeanne Serb and Todd Oakley
- **Hormone-mediated sex ratio adjustment in vertebrates**, *DCE, DCPB, DAB,* Organizer: Kristen Navara
- **Coping with uncertainty: Integrating physiology, behavior and evolutionary ecology in a changing world**, *DAB, DCE, DEE, DCPB,* Organizers: Zoltan Nemeth, Frances Bonier and Scott MacDougall-Shackleton
- **Assembling the Poriferan Tree of Life**, *DIZ,* Organizer: Robert Thacker and Allen Collins

Post-meeting survey

The society conducted an extensive on-line post-meeting survey. There were 529 responses and the input will help us improve our annual meetings! Here are a few highlights.

Overall, respondents rated this meeting very highly. 85% rated the meeting very good or excellent. 56% rated this meeting better or much better than other societies. Reading the comments, it was clear that many people appreciated the quality of the presentations and the symposia, as well as the diversity of the program. Multiple people commented that the meeting was well-organized and student-friendly.

Suggestions made and adopted: Some of the suggestions made by survey respondents are definitely

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We will work with our AV providers to improve support for Mac users, sound and video files, and high quality timers and laser pointers.

STRONG PROGRAM & SURVEY RESPONSES

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being adopted. These include:

1. We will reinstitute an AV training session for our students. Students will be trained to operate and help speakers with microphones and laser pointers, and to help the session chairs with the lights and timers. Extra batteries will be supplied. This will hopefully reduce AV issues.
2. Information on how and when to upload talks will be added to the website and program.
3. Information on the type of food available at the various events will be added to the program.
4. We will work with our AV providers to improve support for Mac users, sound and video files, and high-quality timers and laser pointers.
5. We will increase the proportion of vegetarian items at the receptions.
6. SICB will pay, if necessary, for "green meeting" services, such as available recycling.
7. Name-tags will be two-sided!
8. It will be an option to indicate that a speaker is willing to do a five minute "speed presentation" for San Francisco.

Suggestions still under exploration: Some suggestions are still being explored by the SICB leadership.

1. One suggestion was to reduce oral presentations to 15 min, to allow better temporal synching with the symposia, and to help fit an increasing number of talks into our program. This question will be considered by the Program Committee.
2. Students would appreciate receiving feedback on their judged presentations. We are passing this desire on to the divisional chairs.
3. We are exploring smart-phone aps for the meeting, and how to facilitate use of Quick Response (QR) codes to enhance the meeting.
4. It would be nice to present the student awards after the Moore lecture, at the end of the meeting, to increase the prominence of our most successful trainees. We will explore whether this is practical with the divisional chairs.
5. Arranging field trips to local destinations such as meetings. The main issue here is finding a time for this in our packed schedule. We are looking into arranging these on the "arrival day" for San Francisco.

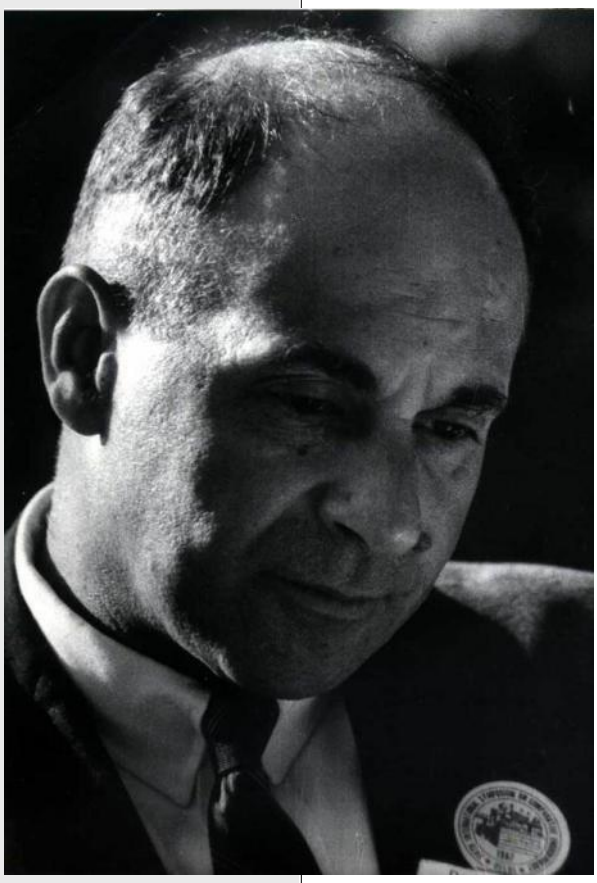
Suggestions tentatively rejected: Some members requested more and better coffee, alcohol, and food. According to our contracts, we must obtain these items through the sponsoring hotel. Costs are excessive ($80/gallon for coffee, $85/dozen muffins, plus a 20% service charge and tax). The leadership feels that we'd rather invest in subsidizing students and keeping registration costs relatively low.

Call for Symposia for Austin (2014): It is time to start planning! The deadline for submission is **August 24, 2012**. Watch for new symposium guidelines on the SICB website.

Student Support Committee Makes Awards to Students

The Student Support Committee evaluating the Fellowship for Graduate Student Travel (FGST) grants and the Grants in Aid of Research (GIAR) was Chaired by Todd Oakley and supported by a team of 11 SICB members. The committee was joined by the first annual student representative - Kausalya (Kay) Shenoy - an award winner from the previous year. A total of 110 applications were received with 5 awards made to FGST grants and 22 made to GIARs.

HOWARD BERN 1920-2012



Howard A. Bern, professor emeritus of Integrative Biology at the University of California, Berkeley, died at the age of 91 on January 3, 2012 at his home.

Professor Bern was born in Montreal, Canada, on January 30, 1920, and moved with his family to Los Angeles in1933. He received his BA in 1941 and his PhD in 1948 from the University of California, Los Angeles. He served in the military in the Medical Department in the Pacific during WWII (1942-6). He began as an instructor in the Zoology Department of the University of California, Berkeley in 1948, and spent the rest of his career there.

With his late colleague and friend Aubrey Gorbman, Professor Bern co-authored the definitive volume, *A Textbook of Comparative Endocrinology*, in 1962. This book inspired a large number of scientists, and helped launch the emerging field of comparative endocrinology. Professor Bern was the author or co-author of more than 600 scientific papers, and he was co-editor of seven books. He made major contributions to vertebrate and invertebrate endocrinology, the actions of prolactin and urotensin, and the hormonal control of osmoregulation. One example of Professor Bern's research was his seminal work in the 1960s on diethylstilbestrol (DES), a synthetic hormone given to women to prevent premature birth. Howard and co-workers demonstrated that the daughters of DES recipients experienced increased cancer risk and reproductive abnormalities. This research presaged the emerging and now established field of endocrine disruption, the study of environmental chemicals that affect hormonal systems.

Professor Bern was honored by UC Berkeley with the Distinguished Teaching Award in 1972 and the Berkeley Citation in 1990. He was elected on merit as a Member of the National Academy of Sciences, American Academy of Arts and Sciences, and as a Fellow of the American Association for the Advancement of Sciences and of the California Academy of Sciences. In 1988, the American Society of Zoologists (the forerunner to SICB) held a special symposium, "Evolving Concepts in Chemical Mediation," in honor of Professor Bern, and in 1990 the California Legislature cited him in the Assembly. In 2001, the Howard A. Bern Lecture was inaugurated by SICB. Professor Bern received honorary doctorates around the world, including from the University of Rouen in France, and from Hokkaido University, Toho University, and Yokohama City University in Japan.

Professor Bern's greatest commitment was to his students and their development. He mentored 46 PhD students, 36 MA students, and 90 postdoctoral fellows and visiting professors. His leadership was characterized by the highest standard of intellectual rigor and integrity. Nevertheless, every one of his students and associates developed a special kinship that sprang from Professor Bern's genuine caring and support. He was "Howard" to all. Professor Bern's laboratories em-

"Howard was part of a long tradition of leadership in SICB that believed that giving students a voice early in their careers was critical to their development as independent scientists."

Remembering Howard Bern

braced diversity in all respects long before our current view of diversity was formed. Diversity was never an area of controversy for Professor Bern, as it was a fundamental premise of the inquiring environment. It extended to his supporting students arrested for their political actions during the Free Speech Movement, which he supported strongly. Students from every U.S. ethnic group and from all parts of the world worked in his laboratory. This approach to people is a hallmark of all of his scholarly descendants.

Howard Bern was a lifetime member of SICB and president of the Society in 1967. Howard was part of a long tradition of leadership in SICB that believed that giving students a voice early in their careers was critical to their development as independent scientists. Howard didn't just believe in the power of encouragement, he lived and breathed it. He used his time at SICB and other meetings to reach out to students, post-docs and young scientists, and offer them praise and encouragement. Howard had an incredible ability to remember, even years later, who you were and what you were about, a testament to his intelligence and how much he cared for others. He worked this magic to help establish Comparative Endocrinology as a field of science and to promote its first and second generations of young scientists.

Howard Bern was brilliant and captivating. He worked hard, expected the same, and set a shining example of work and personal ethics. These things made him a revered scholar, a trusted mentor and friend, and a patriarch to the field of comparative endocrinology. Few have been so loved and admired by so many or for such good reasons. Professor Bern's accomplishments as a teacher and scientist and the honor it brought him are well documented. His importance to his students, postdoctoral associates, colleagues and many friends transcends quantification and will live beyond him.

Stephen D. McCormick
Mark A. Sheridan
E. Gordon Grau

Donations may be made in Howard's memory to the **SICB Howard A. Bern Lecture Fund** (click here) or to **Doctors without Borders** (click here).

SICB Membership Strong

SICB Membership numbers show a strong and vibrant society. Membership figures for early March reveal that we are significantly ahead in all member categories compared with one year ago.
Full Members—1031 (+6.7%)
Postdoctoral—245 (+25.6%)
Graduate Student—723 (+10.7%)
Student-in-Training—290 (+69.6%)

Total SICB membership now stands at 2308 (includes Honorary Members). This number is just shy of the 2355 members for 2011.

Researchers Database. This is a contribution by SICB Member Kevin McGraw in the Division of Ecology and Evolution. Read more about the behavioral ecology, animal behavior, sexual selection, biochemical and physiological mechanisms of bright coloration in birds.

"Experiences—Part 12 in a series of articles about the research experiences of members of SICB.

"SICB members like a good story about an expedition, a field experience, a lab experiment or another researcher."

A Full Circle or Attention Deficit Disorder? - Bob Roer

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of Karl Wilbur. As I joined Karl's lab, he was getting ready to take a semester's sabbatical in England to work with a former postdoc of his, Ken Simkiss, who was then chair of the Department of Zoology at the University of Reading. He asked me if I'd like to accompany him and I immediately agreed.

It was Ken who suggested that I shift the focus of my study to the hypodermis underlying the calcified carapace of the green crab, since it was likely to be involved in the calcium translocation associated with molting of the exoskeleton. Ken had been studying calcium transport across the chorioallantoic membrane of the chicken egg. One of his techniques was to use a "Perspex" annulus that he glued to the membrane to form a chamber for *in vivo* flux studies. I tried to adapt the technique to the crab by grinding through the carapace and gluing an annulus to the hypodermis. It didn't stick, so I put the crab back in its tank. The first deviation from my planned course of research began with my observation that the hole I made in the carapace of the crab, in my failed attempt to attach the annulus, healed and calcified over without the crab having molted. I mentally filed this phenomenon for later and continued my transport studies.

I used the hypodermis of the green crab *in vitro*, and this formed the basis of my dissertation work. Using crabs from both pre- and postmolt stages and a variety of inhibitors, I determined that calcium translocation was due to the actions of both a hypodermal Ca-ATPase and a Na/Ca exchanger.

It turned out that I didn't have to file my observation of carapace repair for very long. When I returned to Durham, North Carolina, a new postdoc had arrived in the Wilbur lab. Dick Dillaman was working on molluscan shell formation and the next summer, when we were both between experiments, I told him about the carapace that repaired itself in intermolt. We decided to dedicate the summer to a physiological and morphological study of the phenomenon, beginning a collaboration and friendship that has spanned our academic careers.

Karl Wilbur and a very young Dick Dillaman.

At my second meeting of the American Society of Zoologists (now SICB) in December of 1978, I set the stage for a postdoctoral fellowship in the lab of Art Jungreis at UT Knoxville. Soon after that, however, Karl Wilbur gave a seminar at the Institute for Marine Biomedical Research (IMBR) at the University of North Carolina Wilmington and talked, in part, about my work on calcium transport. The director of IMBR, Ralph Brauer, invited me to do some experiments at the lab, which was dedicated to the study of hyperbaric physiology. We set up some crab tissue in

(Continued on page 13)

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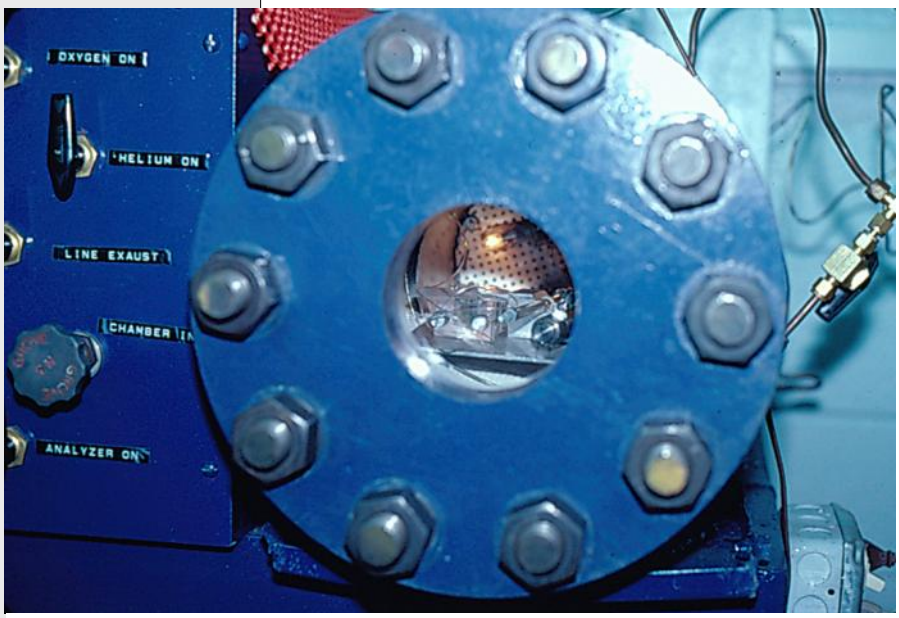
A Full Circle or Attention Deficit Disorder? - Bob Roer

(Continued from page 12)

Ussing chambers and subjected one set to 100 atmospheres of pressure with the controls at normal pressure. We found a marked inhibition of active calcium transport by high pressure.

As I was finishing my dissertation, I was invited to apply for a position at UNCW with a joint appointment in Biology and the IMBR. I interviewed, was offered the job and my wife, Margie, and I never went to Tennessee. A year later, Dick joined me at UNCW when a similar position opened for an electron microscopist.

Contributing to the mission of IMBR, I turned my attention, in part, to looking at the effects of pressure on epithelial ion transport. To do this on whole animals, I decided to look at sodium uptake in freshwater crayfish, and we showed that pressures over 25 atm progressively inhibited the active uptake of sodium. We found that limited acclimation was possible, and we wanted to compare this to organisms that were adapted to life at high pressure. We needed to study freshwater crustaceans that had evolved at great depths.



Ussing Chamber with crab hypodermis in a pressure chamber.

This led to an expedition to Lake Baikal in Siberia. Lake Baikal was formed in a rift valley and has a depth of 1400 m. The deepest freshwater lake in the world, it contains one-sixth of all of the fresh water on the earth's surface and is home to more than 400 endemic and unique species. Many of these are amphipods and a number of them are found at the bottom of the lake at pressures of 140 atm. We spent six weeks trawling the depths of Lake Baikal, collecting amphipods, and conducting sodium flux studies at different pressures. It turned out that these amphipods functioned optimally at depth and decreasing pressures caused an inhibition of active sodium uptake.

In the course of these studies, we also retrieved some cottoid fish, some from the surface and some from the bottom. A number of published studies had measured low metabolic rates in deep-sea fish and hypothesized that this was an adaptation to the paucity of prey at depth. However, all of these studies had been conducted at surface pressures. We conducted measurements of the fish from Baikal at both surface and bottom pressures and found that the shallow-adapted fish showed a decrease in metabolic rate with increasing pressure, but that the deep-adapted fish had a robust metabolic rate at depth, yet demonstrated a decrease in metabolic rate with decreasing pressure.

Meanwhile, Dick Dillaman had been working on a paper that

(Continued on page 14)

A Full Circle or Attention Deficit Disorder? - Bob Roer

(Continued from page 13)

stemmed from some of his earlier research on bone physiology. He had done some morphological studies on chickens showing that there was fluid movement through the mineralized matrix of the bone that he hypothesized was driven by pressure gradients from the bone vasculature. He asked me if I could help him model the pressure gradients to see if this was feasible. My crude modeling attempt convinced us that blood pressure drove this extravascular perfusion of bone.

Deep water amphipods from Lake Baikal. The one on the right is silver-stained to show ion uptake sites.

Again, a chance occurrence led to a new adventure. I read an article about bone loss in astronauts during prolonged spaceflight. It occurred to me that the absence of gravity would profoundly alter blood flow and blood pressure and, according to our model, consequently decrease bone perfusion. Could this be a contributing factor to spaceflight osteopenia?

Again, a chance occurrence led to a new adventure. I read an article about bone loss in astronauts during prolonged spaceflight. It occurred to me that the absence of gravity would profoundly alter blood flow and blood pressure and, according to our model, consequently decrease bone perfusion.

Dick and I proposed this hypothesis to NASA and were funded for ten years from NASA Ames Research Center. We used a hindlimb-suspended rat model of weightlessness and I became proficient in the implantation of indwelling catheters and ultrasonic blood flow probes. I also learned and implemented a finite difference modeling software package, designed for air and groundwater studies, to simulate flow through the porous medium of bone. We found that the decrease in blood flow to the hindlimbs correlated precisely to the decrease in bone mass, while the increase in blood flow to the head caused an increase in skull bone mass.

Following me on this tortuous path of inquiry was my long-standing interest in calcium dynamics during the molting process in crabs. Having determined some of the aspects of calcium and bicarbonate transport out of and into the exoskeleton during pre- and post-molt, I was curious about why the outer layers of the new exoskeleton, formed during premolt didn't calcify (even though exposed to high levels of calcium and bicarbonate) until after the molt occurred. To investigate this problem, Dick and I needed someone with biochemical and molecular expertise, and we drew Tom Shafer at UNCW into our team. With the inspiration and tutelage of David Towle at the Mount Desert Island Biological Laboratory in Maine, we began to use molecular tools to look at the expression of proteins at different stages in calcifying and non-calcifying regions of crab exoskele-

(Continued on page 15)

Integrative & Comparative Biology is published by [Oxford University Press](). Thank you Oxford for donating books as prizes during the SICB Business Meeting in Charleston!!!

A Full Circle or Attention Deficit Disorder? - Bob Roer

(Continued from page 14)

ton to elucidate the key players and events that controlled mineral nucleation.

As I transitioned into my current administrative position, I spent two summers at the Mount Desert Island Biological Laboratory working with David Towle (whom I met at my first ASZ meeting in Toronto in 1977). That work, and a recent collaboration with Doug Watson, has brought me full circle, looking at the expression of the Ca-ATPase in the crab hypodermis in different stages of the molt cycle.

When I dreamed of studying marine biology as a child of 13, I never would have imagined a career that would take me from crabs to rats and from the depths of Lake Baikal to outer space. I followed my scientific nose and didn't shy away from plunging into a field or embracing a technology that I wasn't familiar with. I've not regretted one weird turn in the journey and have learned a heck of a lot along the way.

Bob Roer
Univ. of NC, Wilmington

Resolution on Climate Change and Ocean Acidification

The following resolution was approved by SICB members on March 1, 2012.

Whereas - global climate change is occurring at an unprecedented rate, primarily through the combustion of fossil fuels and the generation of carbon dioxide.

Whereas - carbon dioxide is a potent greenhouse gas that is both warming the planet as it increases in the atmosphere, and causing ocean acidification through its absorption by the world's oceans.

Whereas - the global scientific community has reached a consensus, based on extensive measurements and models, that climate change and ocean acidification have been influenced in large part by human actions.

Whereas - climate change and ocean acidification are causing significant changes in organisms, habitats, biotic communities, and ecosystems and are predicted to cause irreversible negative impacts on living systems by the middle to the end of the 21st century.

Therefore - be it resolved that the Society for Integrative and Comparative Biology (SICB), with a membership comprised of over two thousand three-hundred biologists, takes a public stand in affirming the demonstrated existence of human-induced climate change and ocean acidification, as well as the urgent societal need to address its biological consequences, to improve humankind's adaptive capacity, and to mitigate both causes and effects.

Missed a Major Lecture at SICB? Catch it on Video

The SICB Executive Committee decided to do an experiment! In an age of social media and internet videos some of the major talks at the 2012 Charleston meeting were recorded. David Drupa of Burk & Associates, Inc., SICB's management company, set out to document some of the major talks. You can view these through the SICB web site. Look for them under the Publications tab. Let us know what you think.

Moving Forward with Grand Challenges

(Continued from page 1)

Wisconsin, Madison. She was the second person to address the Grand Challenges in Organismal Biology at a major SICB address. Dr. McFall-Ngai asked SICB to consider microbial interactions in our basic biological constructs.

The January SICB meeting also held a workshop at which GCOB activities of the past year were discussed. President-Elect Billie Swalla and Program Officer Brian Tsukimura led discussions on SICB activities. In addition, Dr. John Wingfield, Assistant Director of the Directorate for Biological Sciences at the National Science Foundation, answered audience questions concerning the direction and opportunities SICB members had in participating in the GCOB discovery process.

Currently, Billie Swalla, Diana Padilla and Brian Tsukimura are building off of a recently-submitted proposal to NSF's National Evolutionary Synthesis Center (NESCent) program. They are planning to meet with interested parties to prepare a proposal to the NSF Research Coordination Network (RCN) program to focus on the topic of "evolutionary processes that are important for organismal responses to global climate change." The plans are to generate sufficient interest from within SICB and from participants in other societies to move forward into the implementation phase of the Grand Challenges.

Brian Tsukimura
Past Program Officer

Member Benefit: 25% Discount on Oxford University Press Books Go to the SICB Home Page

Molly Dickens Wins Dorothy Skinner Award

The 2012 Dorothy M. Skinner Award was presented to Molly J. Dickens. Molly studies the effects of acute and chronic stress on reproductive behavior. She is a true integrative biologist, who works at levels of organization ranging from molecular mechanisms of stress response, to behavioral neuroscience, to conservation physiology. She received her PhD in 2009 from Tufts University and is currently a postdoctoral fellow at the University of Liege in Belgium. Her publication record is remarkable, with 10 first author publications and several more in the pipeline.

Researchers Database

- Send a title, a short paragraph and a photo representing your research to your divisional secretary.
- The photos appear on the SICB homepage and change each time the page is refreshed.
- This is a great way to recruit students into your laboratory.

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SICB FINANCES—CONT.

(Continued from page 4)

ture, the Symposium Fund, which distributed nearly $17K in FY 2011, and the GIAR fund, which distributed $26K in grants in FY 2011.

Endowment Fund	FY 2011 Donations	Balance (06/30/2011)	Balance (06/30/2010)
Carl Gans Award	$170	$ 35,430.54	$33,049.94
George Bartholomew Fund	$535	$123,883.61	$111,958.22
Libbie H. Hyman Fund	$205	$27,536.77	$25,253.58
Dwight D. Davis Fund	$675	$8,579.46	$7,210.24
John A. Moore Fund	$100	$3,638.31	$3,377.91
Adrian M. Wenner Fund	$100	$9,337.49	$8,481.93
Dorothy M. Skinner Fund	$1660	$9,990.09	$8,719.78
Symposium Fund	$165	$124,817.36	$114,602.54
Charlotte Mangum Fund	$425	$280,092.33	$267,860.50
GIAR Fund	$645	$192,816.02	$183,594.47
Howard Bern Lecture Fund	$4,010	$7,238.75	$3,765.00
C. Ladd Prosser Fund	$55	$29,005.50	$26,603.47

Proposed Bylaws Amendment

This amendment is proposed by the SICB Executive Committee in accordance with Article XVII, Section 1 of the SICB Bylaws.
Additions in **bold underline**.
Deletions in ~~strikethrough~~.

Article XV: Standing Committees

Section 12. ~~Committee on Broadening Participation~~ **Broadening Participation Committee**: The President shall appoint a Committee consisting of **at least** six members, each for a term of three years. The President shall appoint the chair of the Committee. **The term of the Chair shall be three years and the Chair will sit on the Executive Committee.** The appointment of members of the Committee shall be ordered so that the term**s** of **one-third of the members** ~~two members~~ shall expire each year. The Committee shall design and promote activities of the Society to increase the diversity of the membership of the Society and of fields of integrative and comparative biology. The Program Officer, the chair of the Student Postdoctoral Affairs Committee, and the President-Elect shall be *ex officio* members of the Committee.

Rationale: The renaming of the committee puts it more in line with other committee names. The addition of "at least" gives the SICB President the flexibility of adding more members as needed. The most significant change is to add the Chair of this committee to the SICB Executive Committee. This is proposed because of the importance of broadening participation in SICB and the life sciences. Voting on this proposal will take place later in the spring.

Researchers Database

Ever noticed the cool images on the upper left hand corner of the SICB web page? They change every time the screen is refreshed. Submit your photos and brief paragraphs to your **divisional secretary**.

SCIENCE AMONG THE PALMETTOS

(Continued from page 1)

ple had at least a short visit or a dinner in town. It was beautiful and I wish I had more time to check it out.

When I got home to Friday Harbor, there was Charleston on TV, because the Republican Presidential candidates had just arrived for their debate, and the reporter was standing in the Old City Market we had been exploring the day before – excellent pralines, shoes, baskets, and BBQ. For those of you who forgot your toothbrush or had mismatched socks, you could walk for miles from the conference center and still be in malls – good exercise too. Between the parking lots were expanses of pine forest, interspersed with pools and channels; was that a gator?

Did I say biggest meeting ever? Yes, that is true. Our attendance was 1832 people, out of a total membership of around 2300. Not all attendees were members, but most were, so that is excellent participation. It is wonderful to see that our society is so active and energetic, but now the executive officers, and especially our new Program Officer, Jon Harrison, are wondering how many people we have to accommodate in San Francisco next January. That is a very popular venue, and we are expecting a great turnout. Brian Tsukimura got to end his term as Program Officer on a high note; not only was the meeting the largest ever, the level of satisfaction with the organization and the location were extremely positive. Furthermore, I was told by a 'high ranking federal official', that this was the best meeting ever and that the level of the science reported had taken a significant step upward (**N**ot **S**aid **F**acetiously).

The meeting included a series of excellent special lectures, starting with the plenary; Margaret McFall-Ngai explored the interactions of microbes and larger organisms, and outlined a new area of research focus for a segment of SICB. We ended the meeting with a provocative Moore Lecture by Brian Alters on teaching evolution in a sometimes unreceptive climate. The longer meeting format allowed a very full last day, followed by an excellent though somewhat crowded final social in the lobby, with great food, and sightings of a surreptitious cephalopod dressed in a sport jacket.

Representatives from NSF filled us in on their view of Grand Challenges in Organismal Biology and the activities at NSF and in other societies that are relevant to GC. Brian Tsukimura and the SICB GC committee outlined their efforts and proposals for future work. Based on what we heard at these meetings, we decided to put out a call for the next round of GC papers in ICB, dealing with the implementation of the Grand Challenges as we have refined them.

The SICB Executive Committee was busy patting each other on the back, and proposing toasts with their water bottles. Actually, they got a lot of work done in two long meetings, followed by the very well attended Business Meeting where our awards were announced, and we worked out a resolution dealing with climate change and its effects. More importantly, Rich Satterlie continued his SICB trivia contest, and several people went home with Piggly Wiggly paraphernalia. I put mine on the refrigerator just to make me think before opening.

Ken Sebens, SICB President

Students may receive support from SICB to attend the annual meeting for up to 3 years.

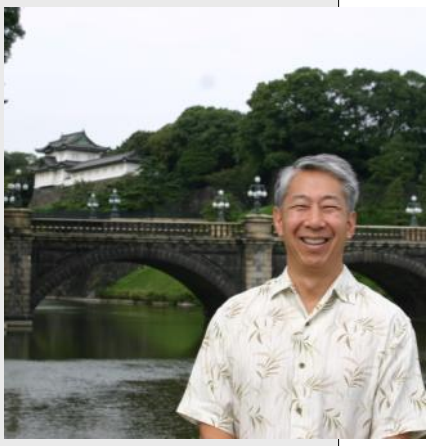
Candidates for President:

- *Brian Tsukimura*
- *Peter Wainwright*

Ballots will be issued later in the spring.

CANDIDATE PROFILES—SPRING ELECTIONS

Brian Tsukimura



Current Position: Professor of Biology, Department of Biology, California State University, Fresno.

Education: Univ. of California, Berkeley, A.B. Zoology, 1981; Univer. of Hawaii at Manoa, M.S. Zoology, 1985; Ph.D. Zoology, 1988.

Professional Experience: Professor of Biology, California State University, Fresno 2005-present; Associate Professor of Physiology, 2000 –2005, California State University, Fresno; Assistant Professor of Physiology, 1994–2000, California State University, Fresno; Acting Assistant Professor, Illinois State University, 1992–1994; Lecturer in Biology, Illinois State Univ., 1990; Postdoctoral Fellow, Endocrinology, Illinois State University, 1988–1992.

SICB Activities: Program Officer 2010 -2012, Past-Program Officer 2012-2013. Program Officer-Elect (2009 -2012); Committee on Grand Challenges, Chair, 2009 - present; Committee on Broadening Participation, 2009 – present; Member SICB Program Committee as The Crustacean Society Liaison to SICB, 2004 to 2009. Chair, Student Support Committee, 2002-2006 (implemented and increased number of FGST awards); Chair, Student/Post-Doctoral Affairs Committee, 1995-1999.

Other Memberships: The Crustacean Society (Treasurer, former Liaison to SICB); American Microscopical Society; Western Society of Naturalists; American Association of the Advancement of Science; Sigma Xi; Sierra Foothill Conservancy; Founding President, Asian Faculty/Staff Association of Fresno State.

Research Interests: Comparative endocrinology of the regulation of development, growth, and reproduction using crustaceans (Branchiopoda, Brachyura, Astacidae and Penaeoidea). Current studies focus on the influence of environmental factors on reproduction and development, and the regulatory hormones integrating these influences, particularly on vitellogenin synthesis and larval growth. Recent studies on the invasive Chinese mitten crab have diversified my research to include invasive species ecology, particularly with respect to larval population dynamics on adult year class strength, and taxonomy.

Goals Statement: During my time as program Officer, we have improved our annual meeting by raising the bar for symposia, both for content and for obtaining outside support. Nine of 10 symposia in 2012 received external support. This structure has also help increase the ICB journal impact factor to 2.6 from 1.8 in a single year. We have also decreased the amount of overlap for presentation topics and increased the amount of space between posters. Since my first meeting in 1986, I have found that the SICB annual meetings serve as a forum for SICB members to share data and exchange ideas. Along those same lines, my goal as president would be to continue to keep SICB as the lead organization for the Grand Challenges in Organismal Biology (GCOB). We have already generated 8 papers, and 3 workshops with their 2 summary papers. The SICB should continue to generate synthetic papers more clearly defining and outlining means to implement the GCOB. Secondly, after submitting (as co-PI with Cheryl Wilga and Michelle Nishiguchi) a 5 yr, $500K NSF grant proposal for Broadening Participation in SICB, I hope to implement the proposed activities and increase the numbers of URG's within our ranks, and hopefully areas of the biological sciences. If funded we will share the proposed programs on our new Broadening Participation webpage.

CANDIDATE PROFILES—SPRING ELECTIONS

Candidates for President:

- *Brian Tsukimura*
- *Peter Wainwright*

Ballots will be issued later in the spring.

Peter C. Wainwright

Current Position: Professor and Chair, Department of Evolution & Ecology, University of California, Davis, CA.

Education: B.Sc. Duke University (1980); Ph.D. University of Chicago (1988); Postdoctoral Fellow University of California, Irvine (1988-90).

Professional Experience: Assistant Professor (1990-1991) Florida International University, Miami, FL; Assistant Professor to Associate Professor (1991-1998) Florida State University, Tallahassee, FL; Associate Professor to Professor (1999-2012) Univ. of California, Davis.

SICB Activities: Member of Division of Vertebrate Morphology (DVM) since 1983; DVM Chair (1997-1999). Member of Division of Systematic Biology (DSB) since 1988; Founding member of Division of Comparative Biomechanics; Editorial Board, *Integrative and Comparative Biology* 2005-2007.

Other Memberships: Member, Society for the Study of Evolution since 1990; Member, Society for Systematic Biology since 1992; Member, American Society of Ichthyologists and Herpetologists since 1980. Associate Editor for Evolution from 2002-2005; Associate Editor for American Naturalist from 2002-2005; Associate Editor for Functional Ecology 2008-2011; Editorial Board, Zoology 2005-2009; Senior Advisory Board and Deputy Editor, Journal of Morphology, 2011-2012.

Research Interests: Evolution of functional morphology in vertebrates. Evolution of morphological and functional diversity. Evolution of fishes. Functional morphology, evolution and ecology of feeding systems in fishes. Comparative methods for the study of continuous trait evolution.

Statement of Goals: The Society for Integrative and Comparative Biology (SICB) is benefitting from a dynamic era in biology of increasing emphasis on integration. We can anticipate that SICB will continue to attract new integrative areas and that our meetings and publications will continue to provide natural outlets for the latest developments and synthesis in these areas. While SICB has been effective in outreach and communicating with our youngest scientists, this remains an area of highest priority. We should also continue to expand efforts to increase diversity in our science, building on our outstanding track record of facilitating student involvement in our meetings. SICB deserves its reputation as a society that has been nimble and creative in shaping its future and we should nurture this culture of inventiveness that has its roots in the extensive involvement of our membership. Following this proven formula for success I would focus my efforts on continued excellence in our core activities: outstanding national meetings, a highly influential journal, active participation of our membership, the cultivation of our student and postdoctoral members, and effective outreach and education.

Candidates for Program Officer:

- *Rick Blob*
- *Sherry Tamone*

Ballots will be issued later in the spring.

CANDIDATE PROFILES—SPRING ELECTIONS

Richard W. Blob

Current Position: Associate Professor, Department of Biological Sciences, Clemson University, SC.

Education: B.A., University of Pennsylvania (1992); Ph.D., University of Chicago (1998); NIH-NRSA Postdoctoral Fellow, Field Museum, Chicago (1999-2001).

Professional Experience: Assistant (2002-2007) and Associate (2007-2012) Professor, Clemson University, Clemson, SC.

SICB Activities: Member of Divisions of Vertebrate Morphology (DVM) and Ecology and Evolution (DEE) since 1994, and Comparative Biomechanics (DCB) since its founding in 2007. Served as DVM Program Officer 2010-2012. Chair of DVM Davis Award for Best Student Presentation (2004), and judge for student presentations in DVM (2003, 2008-9, 2012) and DCB (2008-9). Served on DVM Nominating Committee (2001) and SICB ad hoc Committee for review of Oxford University Press as ICB publisher (2009-2010). Organized Southeast Regional Joint DVM-DCB Meeting at Clemson (2008). Co-organized "Going with the Flow: Ecomorphological Adaptations to Aquatic Flow Regimes" Symposium for 2008 SICB meeting (Austin) and "Vertebrate Land Invasions: Past, Present, and Future" for 2013 (San Francisco).

Other Memberships: Society of Vertebrate Paleontology (Predoctoral Fellowship Committee 2003-2012, Chair 2011-2012); Society for Experimental Biology; International Society of Vertebrate Morphologists; American Society of Ichthyologists and Herpetologists; Herpetologists' League; Society for the Study of Amphibians and Reptiles; Sigma Xi.

Research Interests: Evolutionary and ecological morphology and biomechanics, including: Comparative musculoskeletal function during locomotion and feeding in vertebrates; Functional correlates of evolutionary and ontogenetic changes in habitat and behavior; Biomechanical modeling of fossil taxa to gain insight into the evolution of function.

Statement of Goals: The richness and diversity of the SICB program has helped the Society to continue growing even through the difficult economy of recent years. I will work to help keep us building from these strengths. During program organization, I will facilitate communication across divisions, and help divisional program officers to coordinate sessions that maximize integrative opportunities for attendees. Symposia form the core of our journal as well as a major cross-disciplinary focus of the meeting, and I will work with divisional program officers to recruit forward-looking symposia. I will also help DPOs to provide advice to members who are developing symposium proposals and seeking funds to support them. I will encourage members to advance creative ideas for strengthening the program, such as new presentation formats, particularly as our meetings become larger. And to ensure a strong future for the Society, I will promote workshops and other efforts that enhance student training, broaden participation, and reach out to the public.

Candidates for Program Officer:

- *Rick Blob*
- *Sherry Tamone*

Ballots will be issued later in the spring.

CANDIDATE PROFILES—SPRING ELECTIONS

Sherry Tamone

Current Position: Professor of Biology, University of Alaska Southeast, Juneau, AK. **Education**: B.S. Biochemistry, San Francisco State University (1984); Ph.D. Endocrinology, University of California Davis (1993); USDA Postdoctoral Fellow Bodega Marine Laboratory, University of California at Davis (1993-1995). **Professional Experience**: Assistant Professor (1999-2006), Associate Professor (2006-2010), and Professor of Biology (2010-present) at the University of Alaska Southeast, Juneau AK.

SICB Activities: I have attended and presenting at all but three SICB meetings since 1988. I am a member of the Division of Comparative Endocrinology (DCE) since 1988 and more recently a member of the Division of Comparative Physiology and Biochemistry. Within the society I have served on and Chaired the SICB Student Support Committee (2004-2008) and I have served as the liaison between SICB and The Crustacean Society (TCS) from 2009-present. As the liaison, I have served as the TCS program officer and attend all SICB Divisional Program Officer meetings. **Other Memberships**: Member of The Crustacean Society (TCS) since 1996. I organized the Summer TCS meeting in Juneau, AK in 2006. I served as the Associate Editor for the Journal of Crustacean Biology from 2007-2010. I am a member of the American Academy of Underwater Science (1988-present) and serve on the University of Alaska Diving Control Board. I maintain a membership with American Association for the Advancement of Science **Research Interests:** I am interested in the endocrine regulation of growth, development, and reproduction in crustaceans. I am particularly interested in how molting hormones (ecdysteroids) are regulated and how they in turn regulate other endocrine tissues. I have been focusing on the regulation of growth and differentiation in male crabs that undergo a terminal molt and comparing their endocrinology to that of crabs that grow throughout their life. Aspects of the terminal growth strategy are common to insects and this area of comparative endocrinology is fascinating to me.

Statement of Goals: SICB has influenced my scientific career from the time I was a graduate student through my present position as a professor. The national meeting continues to provide an excellent forum in which students, teachers and researchers can interact professionally, share scientific expertise, and form new collaborations. My goal as SICB Program Officer is to maintain the high quality of the national meeting, encourage exciting symposia submissions, enhance the exposure of young scientists to academic opportunities, and increase the diversity within the SICB leadership.

CANDIDATE PROFILES—SPRING ELECTIONS

Candidates for Member-At-Large:

- *Michele Nishiguchi*
- *Cheryl Wilga*

Ballots will be issued later in the spring.

Michele K. Nishiguchi

Current Position: Professor of Biology, New Mexico State University, Las Cruces, NM

Education: B.Sc. Biochemistry with minor in Theatre Arts, UC Davis (1985); M. Sc. Marine Biology, UC San Diego, Scripps Inst. Oceanography (1989); Ph.D. Biology, UC Santa Cruz (1994); NSF Postdoctoral Fellow (1994-96) University of Southern California and University of Hawaii (1996-97), Postdoctoral Fellow (1997-98) UC Los Angeles

Professional Experience: Assistant Professor of Biology (1999-2005) New Mexico State University, Las Cruces, NM; Associate Professor of Biology (2005-2009) New Mexico State University, Las Cruces, NM: Professor of Biology, New Mexico State University (2009-present). Department Head, NMSU Biology (2010-11), Associate Department Head, NMSU Biology (2011-present).

SICB Activities: Member, Division of Ecology and Evolution, Division of Phylogenetics & Comparative Biology and Division of Invertebrate Zoology; Program Officer of DPCB, 2004-2007. Chair of DEE 2009-2011. Student Support Committee (2007-2008). Broadening Participation Committee (2008-2010).

Other Memberships: Member of the Society for the Study of Evolution, Organizer for SSE symposium "Understanding the evolutionary patterns and processes of virulence" (2003); Member of the American Society of Microbiology, International Society for Microbial Ecology, Unitas Malacologia, Sigma Xi, and American Malacological Union. Organizer for the Cephalopod International Advisory Committee (CIAC) workshop on "Understanding Life histories of *Idiosepius*" (2003).

Research Interests: Symbiotic associations between beneficial bacteria and their animal hosts; understanding ecological patterns driving microbial speciation; experimental evolution of Vibrio bacteria; adaptation and genome plasticity among symbiotic and free-living marine bacteria; gene regulation of pathogenicity islands; molluscan evolution.

Statement of Goals: The Society for Integrative and Comparative Biology (SICB) is a leader in promoting the integration and incorporation of multiple biological disciplines. Along with this theme, I have been a proponent of promoting diversity within the society, from students to our executive committee. Our membership is in dire need of retaining and promoting the advancement of underrepresented minorities, including women, veterans, first generation college students, and students from low income backgrounds. Promoting diversity among the various scientific disciplines not only increases the ability to generate and share novel and innovative ideas, but also enhances our capabilities as a society to encourage and advance the overall goals of SICB and the greater scientific community. SICB can be a leader in such visions by not only disseminating these ideas, but also endorsing and being an example to other scientific societies as well as to the public that many of us reach out to. I have been committed to these types of issues at my own university and in the greater scientific community, and am willing to strengthen the society by supporting these types of initiatives.

Candidates for Member-At-Large:

- *Michele Nishiguchi*
- *Cheryl Wilga*

Ballots will be issued later in the spring.

CANDIDATE PROFILES—SPRING ELECTIONS

Cheryl Denesha Wilga

Current Position: Professor of Biological Sciences, University of Rhode Island, Kingston; Research Associate, Museum of Comparative Zoology, Harvard University.

Education: 1990 A.A. Biology, Summa Cum Laude, University of Alaska Kodiak; 1992 B.S. Biological Sciences, Summa Cum Laude with Honors, University of South Florida, Tampa; 1997 Ph.D. Biological Sciences, University of South Florida, Tampa; 1997-1999 NSF Postdoctoral Fellow, Ecology and Evolutionary Biology, University of California Irvine; 1999-2000 Postdoctoral Fellow, Organismic and Evolutionary Biology, Harvard University, Cambridge, MA.

Professional Experience: 2011-Present, Professor of Biological Sciences, University of Rhode Island, Kingston; 2009- Present Research Associate, Museum of Comparative Zoology, Harvard University; 2005-2011, Associate Professor of Biological Sciences, University of Rhode Island, Kingston; 2000 - 2005, Assistant Professor of Biological Sciences, University of Rhode Island, Kingston.

SICB Activities: Chair, Broadening Participation Committee (2009-2013); Member, Broadening Participation Committee (2008—2009); Grant Committee, Broadening Participation Committee (2010-2012); Best Student Paper Judge (2003, 2008, 2012); Organized and Hosted the Northeast Regional Division of Vertebrate Morphologists Annual Meeting (2007, 2010). Loyal Member since 1994.

Other Memberships: American Association for the Advancement of Science, American Indians in Science and Engineering; Society for Experimental Biology, Society for the Advancement of Chicanos and Native Americans in Science, Sigma Xi.

Research Interests: Comparative anatomy, functional morphology, biomechanics and evolution of feeding mechanics and locomotion in vertebrates.

Goals Statement: The Society for Integrative and Comparative Biology is an excellent forum for integrative and comparative biologists from all walks of life to share new research. Likewise, the diverse divisions within the SICB illustrate how diverse communities are better poised to solve scientific problems by incorporating more perspectives. It is imperative to keep members informed and to recruit and retain a diversity of members that echoes population diversity to maintain the integrative excellence that is the trademark of our society.