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**EXPERIENCES—
MOLGULA TALES**

by Billie Swalla
President-Elect, SICB 2011-2013

"Above all, perhaps, I am indebted to a decidedly vegetative, often beautiful, and generally obscure group of marine animals, both for their intrinsic interest, and for the enjoyment that I have had searching for them."

N. J. Berrill. 1955. Preface to "The Origin of the Vertebrates"

I did not really understand this quote of N. J. Berrill's until I travelled to Roscoff, France for the first time. The year was 1988, I had two small children, but we decided to travel to Roscoff and see if we could



Figure 1. Laboratoire Lacaze-Duthiers at the Station Biologique de Roscoff.

find the tailless *Molgula* that had been reported there. Traveling is always more complicated with children, if they sleep, then all is peaceful but if they don't..... The long journey ended with my family sitting

(Continued on page 9)

**HIGH FIVES ALL
AROUND**

by Ken Sebens, SICB President

In late September, the SICB Executive Officers gathered in San Francisco to check out the meeting site for January, and to deal with accumulated SICB business in one of our rare non-virtual (i.e. face-to-face) meetings. The good news is that our 2013 meeting in San Francisco is apt to be a really good one, in a great location, and at a relatively low cost because we grabbed a great hotel rate when the economy was bad. According to Brett Burk, the room rate at the Hilton in 2013 is comparable to what it was back in 1988, the last time we were there. I guess there are some benefits to economic downturns after all. Our meetings have been very well attended in recent years, and the trend continues for 2013. Based on early returns, we project attendance

(Continued on page 13)

**GRAND CHALLENGES—
IMPLEMENTATION**

The Grand Challenges within SICB was rallied last year with a set of implementation papers suggesting that groups blend together disparate research fields to address the Grand Challenge questions. The question that seemed to resonate amongst the papers was "How Organisms Walk the Tightrope between Stability and Change." We developed a working group to implement potential coalitions to address this broad question by forming a workshop to develop Research Coordination Networks

(Continued on page 12)

SICB Executive Officers**Ken Sebens**

President 2011-13
U. of Washington

Rich Satterlie

Past President 2011-13
U. of NC Wilmington

Billie Swalla

President-Elect 2011-13
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Bob Roer

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Karen Martin

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Secretary 2012-15
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Jon Harrison

Program Officer 2012-14
Arizona State Univ.

Brian Tsukimura

Past Prog. Officer 2012-13
Cal State U. Fresno

Brett Burk

Executive Director
McClellan, VA

San Francisco Here We Come!

Jon Harrison

ProgramOfficer@sicb.org

You are going to love the amenities of the SICB meeting in San Francisco; the pleasant entry lounge of the Hilton for finding friends, almost everyone in a single hotel (priced less than half the normal cost), the conveniently clustered meeting rooms, the dramatic views from the top-floor City-Scape for socials, the incredible diversity of restaurants, coffee

shops and bars within easy walking distance! Even better is the quality of the scientific presentations. We have major lectures by Richard Satterlie, Alison Sweeney, Ellen Ketterson and Susan Moore Singer. Eleven truly outstanding symposia (selected from 30 proposals), workshops on citizen science, introductory biology, genomic tools, phylogenetics, effective presentations, and negotiating your first job, and over 1640 contributed talks and posters. I recommend you clone yourself or hire five people to take notes for

you so you can "attend" all the sessions you'll want to see. Years from now, you'll remember and be glad you made it to this SICB meeting.

"I love this city. If I'm

elected, I will move

the White House to

San Francisco. "

~Robert Kennedy

Of course, the beauty and popularity of San Francisco comes with some costs. As an example, coffee at the sessions is costing SICB > \$100/gallon, so we aren't providing all you can eat buffets or lots of free booze. I recommend the BART to the Hilton from the airports if you are willing to walk a few blocks and if you have a smaller bag that you don't mind carrying up some stairs. It's cheap and fast. Our deadlines for student support to attend the meeting have

passed, but as always SICB is very good to its students. There are lots of little grocery stores within walking distance of the hotel if you want to make yourself healthy, inexpensive salads for lunches or dinners. Book your hotel room and plane soon to get the best deals, and

don't miss the early registration deadline (Dec. 3)!!! As you plan your trip, be sure to stay for the last day. In addition to three symposia, we have the Moore lecture and a fabulous end of meeting

party in the Grand Ballroom, where we will be dancing and grooving to D.J. Ignacio Moore's vibes.



Child Care at SICB

Child care is being offered at the SICB annual meeting in San Francisco. The SICB business office is checking references and making sure that the provider chosen will be caring, responsible and competent.

If you are interested in child care at the meeting, please go online and fill out the child care survey (in the online registration site). Once details are finalized we will contact you to give you the options and payment information.

*The Science
Journalism
Internship is a part
of the
Charlotte Mangum
Student Support
Program*

SICB News Stories by Student Journalists: Student Journalism Internship Program

The Public Affairs Committee would like to remind members that the Student Journalism Internship Program will be running again this year at the annual conference and will run in the future. This program provides students who are interested in science writing with a real-world science-writing experience at the SICB annual meeting in

San Francisco. Each student will identify a talk or poster of their choice, conduct interviews, and write an original popular science piece that will be posted on the SICB web site. Between four and six students are chosen. The Science Journalism Internship is a part of the Charlotte Mangum Student Support Program, and students must apply to both.

Stories by Student Journalists from the 2012 Meeting in Charleston

[Fighting off infection: some of Darwin's](#)



[finches pack a punch.](#) By Julie Charbonnier, Department of Biology, Virginia Commonwealth University

[Fish species snake their way on land.](#)



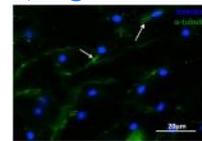
By John Whiteman, Department of Zoology & Physiology, University of Wyoming

[Half a century of seabirds and weather.](#)



By Emily Elderbrock, Department of Biological Sciences, University of Memphis

[Sponge 'sneezes' point to mechanosensory system, minus the neurons.](#)



By Desmond Ramirez, Department of Ecology, Evolution, and Marine Biology, University of California, Santa Barbara

[A Stealthy Warning: The Black Widow's](#)



[Covert Color Communication.](#) By Kara Feilich, Museum of Comparative Zoology, Harvard University

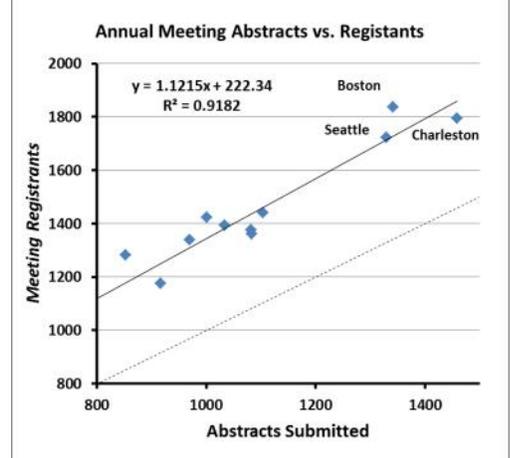
[Out in the Cold: Birds of a Feather Responding to Weather.](#)



By Karen Word, Department of Neurobiology, Physiology, and Behavior,

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.



Fun Facts: San Francisco should be in the upper right! **Way to go SICB!**

SOCIETY'S FINANCES REMAIN STRONG— TREASURER'S REPORT, BOB ROER

Annual Meeting

With the greatest number of abstracts submitted for a meeting to date, the 2012 meeting in Charleston was a fiscal as well as scientific

success. Effective last fiscal year, I requested that Burk and Associates begin to move the portion of their management fee that is dedicated to our annual meeting from the general ledger to a meeting expense. This has provided a much more realistic picture of the bottom line

for our annual meetings. For comparative purposes, I went back to the 2007 through 2010 annual meetings and adjusted the net income or loss from the annual meetings by deducting the meeting management fees. The Charleston meeting had the greatest net income (\$38,793) after the 2009 meeting in Boston.

The Journal

Proceeds from the publication of *Integrative and Comparative Biology* exceeded the budgeted amount by over \$22.5K for FY 2011, with

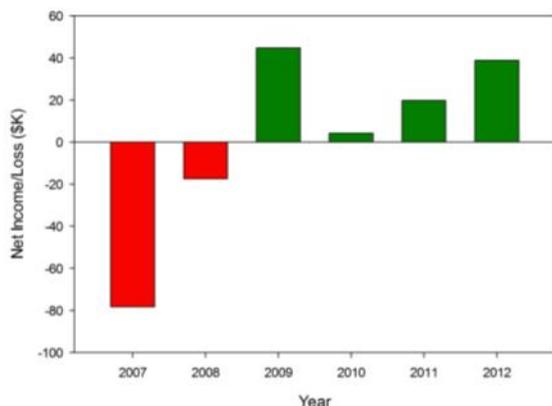
net revenue of \$282,519, up from \$278,423 in FY 2010. The revenue from the journal continues to be the largest single revenue source for the Society.

Endowments

The restricted endowment funds benefited from the increase in the value of our investment portfolio. That was fortunate since donations to almost all funds were far below last year's levels. Because the yearly distribution from each of the endowment funds is tied to the five-year running average of their value, the current year distributions will meet the award needs for most of these.

However, a number of the funds remain substantially below the requisite \$25K needed to be self-sustaining. These include the Davis, Moore, Wenner, Skinner, and Bern funds and they need our support in order for them to provide awards in the current and future years. Remember, one option that allows a fund to make an award, when its yield is insufficient, is for donors to specify that part or all of their contributions can be used in the current year with any surplus going into the corpus of the endowment. Please consider making a donation to the fund of your choice and see the article on Major Gifts and Planned Giving in this newsletter.

Budget Summary - Annual Meeting



Support your favorite SICB fund.

Click on the "donations" button on the home page.



Endowment Fund	FY 2012 Donations	Current Balance
Carl Gans Award	\$125	\$34,556
George Bartholomew Fund	\$585	\$124,469
Libbie H. Hyman Fund	\$1,655	\$29,292
Dwight D. Davis Fund	\$745	\$9,374
John A. Moore Lectureship Fund	\$25	\$3,638
Adrian M. Wenner Fund	\$0	\$9,337
Dorothy M. Skinner Fund	\$140	\$10,230
Symposium Enhancement Fund	\$155	\$125,072
Charlotte Mangum Fund	\$515	\$280,712
Grants-In-Aid-of-Research Fund	\$410	\$193,226
Howard Bern Lecture Fund	\$1,455	\$8,719
C. Ladd Prosser Symposium Fund	\$50	\$29,056

“SICB Endowments
make our programs
possible.

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

Click

*Donate to SICB
on the SICB Home
Page”*



SYMPOSIUM HIGHLIGHTS—SAN FRANCISCO

Symposia. More details at:

(<http://www.sicb.org/meetings/2013/symposia/index.php>)

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

****Special Sessions honoring Howard Bern, Bruce Sidell and Ken Nagy. More information at: <http://www.sicb.org/>**

DIZ Auction

One of the exciting DIZ-sponsored events at this year's meeting will be the Libbie Hyman auction. Come, and bring your friends from other Divisions, as the auction items are attractive to all--and we would love to get as much money as possible for the student scholarships. There will be a wide array of amazing items on the auction block, from big to small pieces, something for everyone! Some of the items we know about so far include: a week-end get-away at the Pearse home in



Monterey, lots of amazing knitted invertebrates, larval sculptures, fused glass items, a two-foot-diameter steel crab art piece, a full set of Libbie Hyman's The Invertebrates, and (amazingly) a signed, framed Christmas card that Gunnar Thorson sent to Alister Hardy in 1957. We thought it would be a good idea to highlight some of the amazing invertebrate-themed "loot"

that will be available for bidding, so check out this link (<http://sicb.org/meetings/2013/hymanauction.php>), **Sunday, Jan 6, 7:30 p.m.**

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



BROADENING PARTICIPATION IN SICB

*Cheryl Wilga, Chair
Chair.BPC@sicb.org*

First, we would like to welcome our new committee members Rita Mehta and Susan Williams who started this January. We would also like to thank Brian Tsukimura, Nish Nishiguchi, and Ken Sebens for their past work on the committee, it is very much appreciated.

The Broadening Participation Committee sponsors two workshops at each annual SICB meeting, based on suggestions from previous years Broadening Participation Travel Award Fellows. The workshops that the BPC will be sponsoring at the 2013 annual meeting are: “Effective Presentation Skills” hosted by Andrew Clark, and “How to Negotiate your First Job” hosted by Gregory Florant.

Workshop on “Effective Presentation Skills.” The purpose of this workshop is to present students/postdocs/faculty with various strategies for effectively preparing and delivering scientific presentations. The workshop will consist of two parts. During the first half of the workshop, there will be a demonstration of software. Then for the remaining time, professional speakers will talk about tips for healthy preparation habits and handling Q&A. Professional speakers include Manny Azzizi, Patricia Hernandez, and Andrew Clark.

Workshop on “How to Negotiate Your First Job.” Finding your first faculty position can be difficult, particularly in this economic climate. But once you have applied and received an interview, you can be assured that you are doing very well. If you are offered a faculty position you need to negotiate the best possible deal that will help you achieve success. It is at this point in time that YOU are in a position of strength—they have decided that they want YOU in their department. And they are now willing to make a

tremendous investment in your career. In this workshop we will discuss several topics including: Salary range, lab space, start-up funds, office space, leave time, teaching requirements, and service assignments. Having done your “homework” about the position ahead of time can help you to negotiate an agreeable contract with the department chair. Your goal is make sure you give yourself all of the resources you need to be successful. Hosted by Gregory Florant and Billie Swalla.

Travel Awards. The Broadening Participation Travel Award call for applications has gone out and we have many applications that are currently in review. We will have decisions on awards before Nov. 9th. Travel Awards will be presented to recipients at the **Broadening Participation Social** during the annual meeting. So, be sure to come to the social and enjoy the refreshments while you chat with your SICB colleagues. We welcome the participation of all SICB members and look forward to hearing your comments and suggestions for broadening participation in our society.

Broadening Participation Events 2013 Meeting in San Francisco:

- Mentor-Mentee meeting organized by Cheryl Wilga. Thursday, Jan 3, 6:30-7:30 p.m.
- Broadening Participation Committee meeting, Friday, Jan 4, 7-a.m.
- Workshop - “Effective Presentation Skills” organized by Andrew Clark, Friday, Jan. 4th, Noon - 1:00 p.m.
- Workshop - “How to Negotiate your First Job” hosted by Gregory Florant, Sunday, Jan. 6th, Noon - 1:00 p.m.
- Diversity Social hosted by the BPC, Sunday, Jan. 6th, 8 - 10 p.m.

*The Ladd Prosser
Fund and the
Charlotte Mangum
Student Support
Fund resulted from
major gifts to
SICB.*

*Update your SICB
Member Record.
Go to "Directory"
on the home page,
enter your name
and SICB ID #.
Click "Update your
record..."
Include teaching
information!*



MAJOR GIFTS AND PLANNED GIVING

We'd like to tell you about two individuals each of whom has made a very significant impact on our Society. In 2010, **Dr. Len Kirschner**, Professor Emeritus in the School of Biological Sciences at Washington State University and a long-time member of ASZ and SICB, made a decision to honor the memory of Professor C. Ladd Prosser and to provide a lasting legacy to SICB. Len made a major gift of \$25,000 to endow the **C. Ladd Prosser Symposium Fund**, which now helps to support symposia that embody the interests of Ladd Prosser in comparative physiology. With accrued growth and subsequent contributions by members, the current value of this endowment is \$29,056, and it has helped to support a number of SICB symposia.

In February 1998, **Dr. Charlotte Mangum**, then Chancellor Professor of Biology at the College of William and Mary, died from cancer at

the age of 59. Charlotte was also a long-time member of ASZ and SICB and a President of the Society in 1994. Prior to her untimely death, she generously made SICB the sole beneficiary of her life insurance policy. This planned gift endowed a fund that, with growth and continuing donations by members, now sits at \$280,712. The **Charlotte Mangum Student Support Fund** has provided support for many, many students to attend SICB meetings. What a remarkable resource for our society and its students!

Most of us don't possess the ability to make sizeable charitable gifts in our lifetimes, but we can make an impact by including SICB in estate planning. Please consider doing so.

Contact:

- Chair.Development@sicb.org or
- Treasurer@SICB.org

They will be happy to discuss options with you.

EDUCATIONAL COUNCIL NEWS

*Bob Podolsky, Chair
Chair.EdCouncil@sicb.org*

The SICB Educational Council is excited about several opportunities at the San Francisco meeting and on the SICB website for advancing the educational agenda of the Society. (1) Our **2013 Moore Lecture** will be by **Dr. Susan Singer of Carleton College**, a leader in the field of reformulating STEM education. The lecture once again will precede the end of meeting reception. (2) The Educational Council will host the first of its annual "Teaching and Learning-X" (**TAL-X**) roundtable discussion series at noon on Jan 7 in San Francisco. Our topic this year, "**Vision and Change in Introductory Biology**," is being organized by Dr. Bram Lutton of Endicott College and will involve luminaries of the field, including Dr. Singer. (3)

We have initiated a **new section of the SICB Digital Library** on "**Invertebrate Biology**." Initial content for the section, provided by Bob Podolsky, Jan Pechenik, and Jon Allen comprises a set of student-generated "Research Focus Boxes" similar to those in Pechenik's invertebrates textbook. We hope that more SICB members will help to grow this section and other potential areas of the DL. (4) We are planning once again to host an **arrival day display of undergraduate posters**. (5) Please add your teaching information to your SICB member profile! We have had low participation so far in the creation of this database, which will be useful in a number of ways to the Educational Council and to SICB membership. To update: <http://sicb.org> > Directory > Login > "Update your record".

A panel of experts will describe their work with citizen scientists.

Noon

January 5, 2013

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



BEYOND PUBLIC OUTREACH-CITIZEN SCIENCE

News from the Public Affairs Committee

*Jake Socha, Chair
Chair.PAC@sicb.org*

Interested in involving the public while doing serious science? Worldwide, scientists are increasingly teaming up with volunteers to tackle tough and complicated questions. These collaborations provide scientists with access to larger datasets and different types of data compared to traditional research methods, while at the same time providing a valuable educational experience to participants. Citizen scientists monitor bird migrations, test for contaminants in watersheds, or even play online games that predict how proteins fold! At the 2013 annual meeting in San Francisco, SICB's Public Affairs Committee will bring together a panel of experts to describe their work with citizen scientists and to answer your questions about the design and funding of effective, meaningful, and rigorous **citizen science projects**. Set your calendar for **noon, Jan. 5**, and we hope to see you there!

Science policy news from AIBS

The AIBS (American Institute of

Biological Sciences) has launched a new letter writing campaign to encourage members of Congress and the President to prevent the nation from falling off the 'fiscal cliff.' Under current law, this January discretionary programs will be hit with 7.8 percent across the board budget cuts and defense programs will be hit with a 10 percent cut. For details, see: http://www.aibs.org/public-policy/news/alert_sequestration.html#032430. The AIBS has also prepared a short report that summarizes some of the implications of budget sequestration, available at http://www.aibs.org/public-policy/news/alert_sequestration.html#032430.

The AIBS has also received an NSF grant to convene a workshop this September to develop an implementation plan for the Strategic Plan for a Network Integrated Biocollections Alliance. In preparation for the workshop, they are now gathering comments and suggestions. Information about this request for information can be found at:

http://www.aibs.org/public-policy/news/aibs_seeks_input_on_the_network_integrated_biocollections_alliance.html#032427.

Researchers Database. This is a contribution by SICB Member **Steve Huskey** in the Division of Ecology and Evolution. [Read more](#) about his work which focuses on the link between functional design and realized utility in vertebrates.

Submit your work to SICB's Researchers Database. Send a title, a short paragraph, and a photo representing your work to your divisional secretary. This is a great way to recruit students into your laboratory.



MOLGULA TALES - BILLIE SWALLA

(Continued from page 1)

on the steps of the Station Biologique de Roscoff, staring out over the tidal plains to Ile de Batz, a magical island just off shore. My younger sister Patty, brought as a nanny to the boys, sat beside me as we looked at the azure skies, sea gulls circling, and the old fort, which has been converted to research labs. "Did you know that it would be like this?" she asked. "No, not really," I answered truthfully: "This is what it was like in my dreams." Then I pinched myself, and felt it. I had arrived at Roscoff, France, in my search for the tailless *Molgula occulta*.

So began my lifelong adventure with the tailless molgulid ascidians. Ascidian embryos first caught my fancy when I took Developmental Biology at the University of Iowa as an undergraduate student in 1979. I was a senior, an Ecology and Evolution major, and was convinced at the time that any biological phenomenon could be resolved with an elegant mathematical equation. Then one evening, as I read about cytoplasmic determinants, I saw the photo in a textbook that would change my life. It was a live *Styela clava* embryo, with a yellow crescent in the cytoplasm. This cytoplasm would enter the muscle cells and eventually carry a determinant into the nuclei to make the cell muscle (the determinant was later identified as a transcription factor, *macho-1*; Nishida and Sawada, 2001). I usually read the textbook fast and lightly, then reviewed my notes and moved on to something else. That night I looked at the photo for a long time. Naturally colored ascidian eggs? What if you could isolate that cytoplasm? Figure out whether it contained special RNAs and proteins? Fuse it with another egg? I decided then and there that I needed to take the Embryolo-

gy Course at MBL, Woods Hole, Massachusetts to see these embryos for myself.

However, as beautiful as ascidian embryos are, after seeing them in person and learning about them in Embryology 1983, I was reading N. J. Berrill (1931) in the MBL library

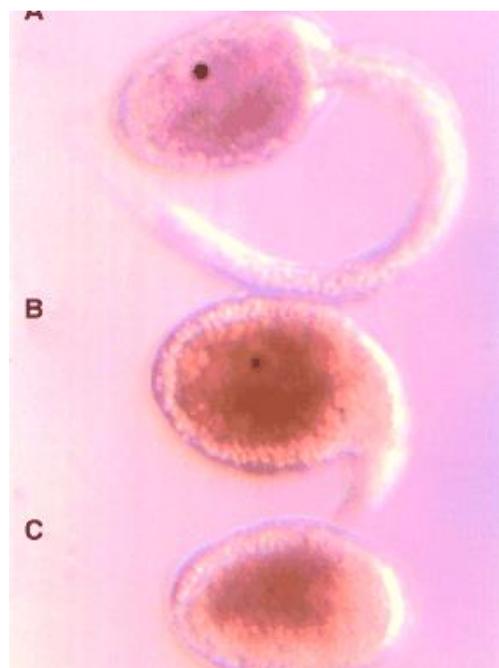


Figure 2. Photo of the tailed *Molgula oculata* hatched ascidian on top, the tailless *Molgula occulta* larva on the bottom, and the hybrid that developed from an *M. occulta* egg and an *M. oculata* sperm. This figure first appeared in Swalla and Jeffery, 1996. Used with permission.

when I ran across an amazing claim. Berrill described a tailless species *Molgula occulta* that he had discovered at Station Biologique de Roscoff that had a closely related tailed species. I looked at his drawings, as he did much of this work before photography was generally available and I was intrigued and excited. What did these tailless species do? Did they swim? Could we still find them? I had never been to

(Continued on page 10)

*“Experiences—Part 13
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.”*



MOLGULA TALES - BILLIE SWALLA

(Continued from page 9)

France, but studied 3 years of French and always thought it would



Figure 3. From left to right, Summer 2012, Elijah Lowe (Michigan State University); Lionel Christiaen (New York University); Billie Swalla (University of Washington); Claudia Racioppi (Stazione Zoologica Anton Dorhn, Naples). This photo was taken after a day in the intertidal, collecting ascidians. Elijah Lowe, photo credit.

be awesome to go there. Would I, could I, make it to France and see these ascidians? What if I could cross the two species? Would they make a viable offspring?

All of this flitted though my mind the day that Patty and I sat on the curb for the first time in Roscoff and watched my children, Tony and David, play in the sun while we figured out where we were living and what lab we would occupy for the summer. Three of my sisters would come with our family there in the next twelve years and fall in love with Bretagne and France, as they watched the boys grow up and helped us hunt for *Molgula*. We did

cross the two *Molgula* species, *Molgula oculata* and *Molgula occulta* (Swalla and Jeffery, 1990), and they made a hybrid with a tiny tail! We wrote to N.J. Berrill, then 92, to tell him how excited we were about his work and he replied with a charming letter, admitting that it had never occurred to him to try the cross between the species, but that he was very pleased that we had. Altogether, I've published over thirty manuscripts on the molgulid ascidians (Swalla and Jeffery, 1996) and I still cherish the long handwritten letter that I received from Berrill, discussing the fascination that we shared about the tailless *Molgulas*.

Nine years later, I would make a fateful phone call from France and learn that my sister Patty was diagnosed with cancer, and return to the USA to lose my sister to signet cell cancer at the age of 29. She loved the time that she spent in France and we had many secret words that described special places in Roscoff. I never see a sunset there that doesn't remind me of her, as we used to watch them and rate them every evening. She had an amazing sense of humor and love of life that were contagious and I still miss her.

As genomes began to be sequenced in the 1990's, we lobbied heavily for the *Molgula* species to be sequenced first, but *Ciona intestinalis* and *Ciona savignyi* were the first tunicates sequenced instead (Dehal et al. 2002). The entire tunicate community rushed to study this model system, as *Ciona* embryos are great experimental systems to study developmental gene networks (Lemaire et al. 2008). I've always been interested in the origin of chordates, and continued studying ascidians, even when it became clear to me that they are highly de-

(Continued on page 11)



MOLGULA TALES - BILLIE SWALLA

(Continued from page 10)

rived chordates. In the mid 1990's I began to study hemichordates because it was clear to me that they were key animals to understand the evolution of chordates (Brown et al. 2008). Many years passed quickly, my children grew up, and genomes became cheaper and cheaper to sequence....

In the past three years, I was given the chance to continue my long-term research on molgulid tailless body plans through "Evolution in Action" by BEACON, a Science Technology Center at MSU. My collaborator is the brilliant Dr. C. Titus Brown from Michigan State University. Titus and his lab, including a talented graduate student Elijah Lowe agreed to assemble the transcriptomes for these molgulid species and we all travelled to Roscoff to watch the hybrids develop again. This year, we teamed up with Dr. Lionel Christiaen, from New York University, and Claudia Racioppi from Naples, to collect samples and sequence the genomes of these two species. This has revived the exciting research into molgulid body plans in my lab and the answers are just as complicated as any truly natural system.

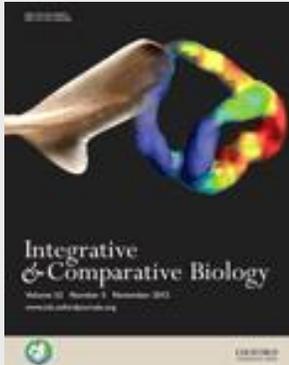
Sequencing the genomes on *Molgula occulta* and *Molgula oculata* will allow us to dissect the evolution of gene networks in closely related species with very different larval phenotypes. The knowledge of gene networks that has been already worked out in the in distantly related model system *Ciona intestinalis* and *Ciona savignyi* will facilitate this research. It is an amazing time to be a scientist, with this knowledge and the skills to coordinate detailed analyses of gene expression and morphological evolution. Please stay tuned, as we'll be presenting results of our recent studies at the 2013 SICB meetings

in San Francisco, California and again at the 2014 SICB meetings in Austin, Texas, and then in the years beyond.

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Figure 1 Note. Photo taken in August, 2012 by Elijah Lowe (MSU) of Laboratoire Lacaze-Duthiers at the Station Biologique de Roscoff. Professor Lacaze-Duthiers used his family money and donations by other wealthy French nobility to fund three marine labs in France.



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(Continued on page 12)

MOLGULA TALES

(Continued from page 11)

Station Biologique de Roscoff was funded because Lacaze-Duthiers had discovered several molgulid species there. He bought an old fort that was not being occupied and fitted it for running sea water tables.

Billie Swalla

IMPLEMENTATION OF GRAND CHALLENGES

(Continued from page 1)

(RCNs) funded by NSF. A proposal was developed over last spring, and put forth by Dianna Padilla (former Chair of DIZ), Billie Swalla

(President-Elect), and Brian Tsukimura (Past Program Officer). This workshop has been funded by the National Science Foundation; the first organizational meeting of 11 steering committee members will be held in early November at Cold Spring Harbor to discuss the feasibility of developing RCN's to address

"How Organisms Walk the Tightrope between Stability and Change," discussing other alternatives and developing a list of the members for the full workshop, which is to be held sometime after the San Francisco meeting of SICB.

We are also developing a workshop for the San Francisco SICB meeting to update and discuss the directions of the Grand Challenges. We hope you will be able to attend this workshop.

-Brian Tsukimura

STUDENT / POSTDOC AFFAIRS COMMITTEE

Peggy Biga, Chair
Chair.SPDAC@sicb.org

SICB, 2013 in San Francisco is going to be a great meeting for SPDAC! We have BIG plans for involvement with the entire society! **But we need your help!**

In San Francisco, SPDAC will operate a booth in the Exhibitors Hall that will bring students, postdocs, and scientists alike together at one table to discuss various different topics of importance to our next generation of scientists. **Show your support of our next generation by donating 30 minutes of your time at SICB 2013 to sit at the SPDAC booth!** We are looking for full members that can share their experiences and expertise in the trials and tribulations that students and postdocs face when 'climbing the ladder' in science. The booth will operate from 1-4 pm on the 3 days of exhibition. There will be a sign in on the website soon. So show that you support our future scientists!!! This is a great opportunity to meet the amazing students and postdocs that attend SICB every year. Who knows, you might meet a future graduate student or postdoc for your own lab! Or, even a future colleague. Questions? Please ask me (Chair.SPDAC@sicb.org).

In addition to the Exhibitors Booth, SPDAC will be hosting a workshop on elevator talks. We need help from you on this also! We need full member participation to aid in training the art of the elevator science talk. If you are interested in participating as a 'trainer,' please let me know (Chair.SPDAC@sicb.org)!!

It is going to be a great meeting in 2013 and we hope to see you there! We also hope you will participate in our events to continue the tradition of SICB being a great open venue for our younger scientists-in-training!



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Home Page*

HIGH FIVES ALL AROUND

(Continued from page 1)

similar to or higher than last year, with a new record of 1651 abstracts submitted in September.

The overall membership of SICB has also remained very strong, and is likely to set a record by the end of the year, with well over 2600 members. This is a substantial increase from the approximately 2100 members in SICB ten years ago, about 20% overall, and 10% in voting members.

Membership took a large jump in 2006, and has remained at relatively high levels since then. Much of the increased membership over the past decade has been in the categories of postdoctoral members (100%), graduate students (60%)



made it more difficult for some members to afford the travel costs. Furthermore, many other scientific organizations have seen declines in membership and meeting attendance over the last few years. Why are we doing so well? There is

probably no single answer, but we certainly have benefitted from the dedication and hard work of our officers, well-planned meetings at excellent venues, and an overall organization of the society that encourages the formation of interest groups that consider SICB their intellectual 'home'. We cover a

broad range of topics in SICB, but there are clusters within that diversity that are very strong in their shared interests, and in their eagerness to present research discoveries and ideas, in the regular sessions and in symposia. In other words, the SICB meeting is the one they always attend to be sure to know about advances in their fields, and to catch up with colleagues.

At the 2013 meeting, we will have several **new events and procedures:**

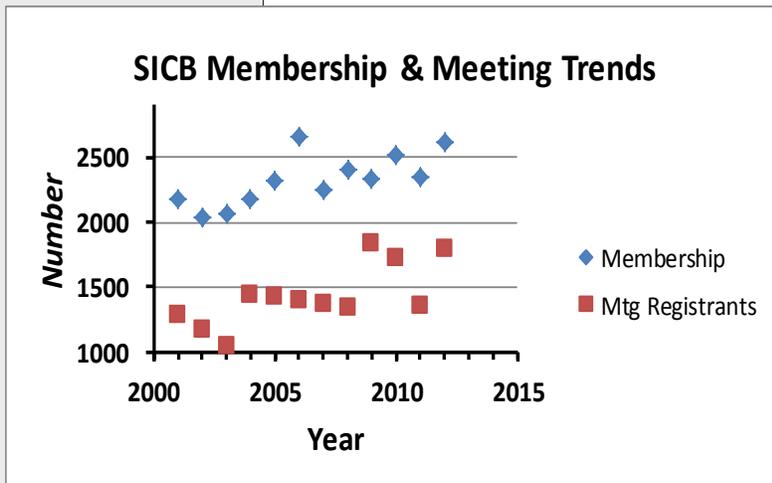
First, there will be expanded video coverage of the plenaries and certain other presentations.

Second, we will encourage video capability in the poster sessions for those with ipads or similar tablet computers, an interest that is likely to expand in the future.

Third, we will be setting up a special booth in the exhibitor area where any members can put their flyers and pamphlets regarding educational or research opportunities. In the past these have been spread out on tables and in the foyers, with no organization. We will give this a try and see how it works out this year.

See you on the trolleys!

-Ken Sebens



and undergraduates (400%), a sure sign that SICB is reaching those younger scientists, and that they see our society as relevant to their interests. I am certain many of those new members will become full members in the coming years.

The increasing attendance at our meetings is a good sign, especially at a time when the economy has