



## Division of Invertebrate Zoology

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### DIZ Officers & Representatives

John Zardus  
*Chair 2015-2018*

James McClintock  
*Past-Chair 2015-2017*

Sarah Berke  
*Secretary 2016-2019*

Bruno Pernet  
*Program Officer 2014-2017*

Jenna Moore  
*Student Postdoc Representative  
2014-2017*

Jennifer Burnaford  
*Libbie Hyman Memorial Scholarship  
Committee Chair*

### Message from the Chair

John Zardus, [Chair.DIZ@sicb.org](mailto:Chair.DIZ@sicb.org)

Greetings, All. It seems like the annual meeting in Portland, Oregon, happened just yesterday. It was the largest turn-out to date and DIZ had an important presence. See the message from our Program Officer, Bruno Pernet (California State University, Long Beach), to learn about the variety of symposia we supported. Some highlights of the meeting included the competition for Best Student Presentation and the triennial auction to raise funds for the Libbie H. Hyman Scholarship Fund. We also teamed up with three other divisions (DEDB, DPCB, & DEE), the American Microscopical Society and The Crustacean Society for a fabulous mega joint social.

The chair of our student award committee, Anne Böttger (West Chester University, PA), organized the DIZ Best Student Presentation Competition and we had excellent participation. Please see her announcement of the winners in this newsletter. Thank you to Anne and those who volunteered to be judges for your great effort.

The inimitable Billie Swalla (University of Washington, Seattle) was auctioneer extraordinaire for the Libbie Hyman auction. Great participation by a generous and fun-loving crowd raised \$3,702 which will be applied towards the fund's principal. The Libbie Hyman fund also benefited this past year by another generous donation from honorary member Dr. Jarid Simons. I am so pleased to announce that with the increases in this fund we plan to continue offering at least two annual scholarships going forward. Please see Jennifer Burnaford's (California State University, Fullerton) report in this newsletter about the three (!) awardees selected for 2016.

There is a modicum of divisional business to take care of in 2016. Jenna Moore (University of Florida, Gainesville) has been giving excellent service for the past two years as DIZ's representative on the Student/Postdoctoral Affairs Committee. She will step down in January and I am pleased to announce that Sammi Smoot, a doctoral student in Ken Halanych's lab (Auburn University, AL) has agreed to take her place in 2017. Bruno Pernet will also be completing his term as Program Officer in January 2017 and elections are planned in May to fill his place. Two candidates have agreed to run for the office, Justin McAlister (Holy Cross, Worcester, MA) and Linda Walters (University of Central Florida, Orlando). Please look for their biographical sketches in this newsletter and keep an eye out for a ballot in the coming weeks.

Before you know it, the New Orleans meeting will be here, so it's not too early to start thinking ahead. The integrative nature of the society makes for a meeting that appeals to a wide audience. The challenge is to develop a program each year that meets the needs of many and keeps interactions happening among groups that might



not otherwise take place. As we think even farther ahead to San Francisco in 2018, send your ideas or wishes for symposia topics to our program officer. Another signature element of SICB is our commitment to fostering student involvement. The society as a whole seems to be thriving and student membership is growing. Encourage your students to join and to participate. We have heard from students that one of the most valuable aspects of participating has been the very useful feedback they have received on their presentations.

May you be enjoying a rewarding spring and anticipating a fruitful summer. I look forward to reporting to you again in the fall.

#### Message from the Program Officer

Bruno Pernet, [DPO.DIZ@sicb.org](mailto:DPO.DIZ@sicb.org)

Dear DIZ members – I enjoyed seeing many of you at the January 2016 meeting in Portland, Oregon! I saw some great invertebrate-focused talks and posters, as usual, and picked up lots of interesting ideas and information for both teaching and research. Some of that information was delivered in symposia, six of which were co-sponsored by our division. They included one SICB-wide symposium – Parasites and Pests in Motion: Biology, Biodiversity and Climate Change (organized by Christopher Boyko and Jason Williams) – and five others: Extraocular, Nonvisual, and Simple Photoreceptors (Thomas Cronin and Sönke Johnsen); The Morphological Diversity of Intromittent Organs (Brandon Moore and Diane Kelly); Integrative and Comparative Biology of Venom (Marymegan Daly and Lisle Gibbs); Tapping the Power of Crustacean Transcriptomes to Address Grand Challenges in Comparative Biology (Donald Mykles, Karen Burnett, David Durica, and Jonathon Stillman); and Beyond the Mean: Biological Impacts of Changing Patterns of Temperature Variation (Michael Dillon, Art Woods, and Michael Sears).

The divisional program officers met last October to evaluate proposals for the 2017 meeting in New Orleans. We selected 11 of these as symposia, and DIZ will co-sponsor five of these. They include two SICB-wide symposia – Indirect Effects of Global Change: from Physiological and Behavioral Mechanisms to Ecological Consequences (Alex Gunderson, Jonathon Stillman, and Brian Tsukimura) and With a Little Help from My Friends: Microbial Partners in Integrative and Comparative Biology (Kevin Kohl and Denise Dearing). DIZ will also co-sponsor three other symposia:

Evolutionary Impacts of Seasonality (Caroline Williams and Gregory Ragland), The Evolution of Arthropod Body Plans - Integrating Phylogeny, Fossils and Development (Ariel Chipman and Doug Erwin), and Low Spatial Resolution Vision - Function and Evolution (Anders Garm). For a list of all 11 symposia for 2017, go to <http://www.sicb.org/meetings/2017/symposia/index.php>. And on top of these we'll have all the normal contributed talks and posters on diverse aspects of invertebrate biology... so the 2017 meeting will be jam-packed with interesting new findings and chances to connect with collaborators, colleagues, and friends. I look forward to seeing you there. After the September 2016 program officer's meeting I'll be able to tell you more about the venue and meeting organization for the January 2017 New Orleans meeting.

One of the most important pieces of my job as DIZ program officer is working with you to develop symposia for upcoming meetings. The deadline for submitting symposium proposals for the January 2018 meeting in San Francisco is 25 August 2016. I've talked to several members about developing proposals for symposia for that meeting... but there are lots of other fantastic symposium topics waiting to be dreamt up by you and your colleagues! The number of symposia per meeting is usually 10 to 12, and it often happens that more proposals are submitted than can be accommodated. So it pays to do your homework (read the symposium proposal guidelines on the SICB website), plan early, and get as much feedback as possible along the way from divisional (me!) and society (Rick Blob!) Program Officers to improve your chances. Please contact me with your ideas for symposia for the New Orleans meeting – I'd love to chat about them, and to help you wend your way through the application process.

#### Message from the Secretary

Sarah Berke, [secretary.diz@sicb.org](mailto:secretary.diz@sicb.org)

Greetings, DIZ! I hope you had a wonderful time at the Portland meeting – I know I certainly did. I'd like to echo my fellow officers in thanking everyone who was involved in the Libbie Hyman auction, which was (as usual) a great success. I personally acquired two spectacular hand-knitted cephalopods which have acclimated well to my office. I'd also like to extend a special thanks to everyone who organized and participated in the special session in memory of Kristian Fauchald. I have fond memories of visiting Kristian at the Smithsonian when we were working on what would



become his last *Diopatra* paper – he was always full of wonderful stories about worms and about life. He will be greatly missed, and the session was a lovely tribute to a lovely man.

As I am also presently serving on the Membership Committee, I would like to update the DIZ membership about some recent developments. An effort will soon be underway to track how student members of SICB do over the course of their careers, and how many of them go on to scientific positions. At some point in the coming year, you may be asked to help contribute information about former students, especially students who are no longer SICB members. Your assistance with these efforts would help us quantify the impact that we have on young scientists, while also better understanding the ways that we can help students as they navigate their careers.

Did you know that our website has a [database of DIZ researchers](#)? Check it out! We would love to expand this resource; if you'd like to submit a photo or video and a brief description of your research, please send them along to me!

We would also like to expand the SICB Digital Library (now renamed SICB Research and Education Resources), which has the potential to be a great resource for K-12 and college level educators. If you have a lab, lesson plan, or other educational material that other educators might wish to use, please consider submitting it to the library. For inspiration, take a look at what's already on the [Invertebrates](#) section of the library, and also check out the [Biomechanics](#) section, which has a rich array of materials.

I hope that the spring semester is treating you all well, and that you are looking forward to a year of rewarding teaching and research. I am already looking forward to reconnecting with all of you at the 2017 meeting in New Orleans!

PS -- I've been asked to include the following announcement about the R.N. Hughes Memorial Fund, which may be interesting to DIZ members:

#### **R.N. Hughes Memorial Fund**

Distinguished marine ecologist, Dr. Roger Neville Hughes (Bangor University, Wales, UK) died in 2015. Roger's wife, Dr. Helen Hughes, has established a fund to perpetuate his legacy. Bangor University has pledged to waive the fees of a Ph.D. student and Helen has matched the sum. In turn, we reach to friends

and colleagues for their financial support in bringing the "R.N. Hughes Memorial Fund" into being.

Roger's research and teaching career spanned five decades. His influence was magnified several-fold by the impact of his scholarship in the scientific literature (210 primary publications, 3 influential books) plus editorship of various scientific journals. In particular, he inspired generations of graduate students (27 M.Sc.s, 36 Ph.D.s and at least 6 Postdoctoral Fellows) through his unique personal approach.

When he left, one of his most important pursuits into the role of genetics in determining dogwhelk morphology was incomplete. Not only was that quest one of his favorites but also a key enigma in marine ecology stretching back 40 years. Now, through a R.N. Hughes Memorial Fellowship at Bangor University, we can collectively answer that research question dear to his heart. Please donate what would you be comfortable giving:

**U.K. Taxpayers:** send a cheque Re: The "R.N. Hughes Memorial Fund" to:

Sheila O'Neal, Executive Director of Development  
Bangor University, College Road  
Bangor, Gwynedd, LL57 2DG, UNITED KINGDOM

Or, direct bank transfer: Bank: Santander UK Plc. Account sort code: 09-02-22, number: 10364019, Account: Bangor University; The "R.N. Hughes Memorial Fund."

**American Taxpayers:** To ensure your donation is tax deductible, send your gift through the British Schools and Universities Foundation. Enclose a note indicating the gift is for the "R. N. Hughes Memorial Fund," Bangor University:

British School and Universities Foundation, 575  
Madison Avenue, Suite 1006, New York, NY, 10022-  
2511, USA

Robert (Bob) W. Elnor Ph.D. (UCNW, Bangor, 1974-  
1977); E-mail: [rwelner@sfu.ca](mailto:rwelner@sfu.ca)



Annelid biologists from around the world gathered to celebrate the life of Kristian Fauchald, Curator of Worms Extraordinaire. Photo by Jenna Moore



This synaptid from the Red Sea was as happy to see Jenna as she was to see it! Photo by Jenna Moore

**Minutes of the 2016 DIZ Business Meeting, in Portland, OR:** click [here](#)

**Message from the Student/Postdoctoral Affairs Committee Representative**

Jenna Moore

Happy Spring, fellow invertebrate enthusiasts! I hope you all enjoyed this year's SICB meeting in Portland as much as I did. The DIZ-sponsored Special Session in honor of Kristian Fauchald was great fun and included many wonderful talks and posters on annelids to remember a great invertebrate zoologist.

As in previous years, the Student/Postdoctoral Affairs Committee had a booth in the exhibitor hall with a number of great resources for graduate students and postdocs. We have continued distributing informative material for students and postdocs with advice for CVs, interviews, and our popular cards with a list of external grants. If you missed us this year, these

grants are listed here: <http://www.sicb.org/grants/externalgrants.php>. SICB also offers internal research grants, check them out here: <http://www.sicb.org/students/awards.php3>.

The SPDAC brown bag workshop at this year's meeting in Portland was "Navigating Career Transitions in Academia." Thanks to all of the experts who shared their wisdom with students and postdoctoral researchers in our new interactive format, and for all who participated. SPDAC is currently planning the workshop topic for next year's meeting in New Orleans. If you have a great idea for a workshop topic, or have ideas about resources you'd like to see offered for students and postdocs, please contact me at [jmoore@ufl.edu](mailto:jmoore@ufl.edu). You can get updates on invertebrate happenings by liking the SICB DIZ Facebook page ([facebook.com/SICBDIZ](https://www.facebook.com/SICBDIZ)), or get more student/postdoc-oriented updates by following SPDAC on twitter @SICB\_SPDAC.

Best wishes for a happy and productive Spring and Summer!

**Message from the Student Awards Committee Chair**

Anne Böttger

Thank you to everyone who made the Annual SICB Meeting in Portland memorable and a special thank you to all the students who presented! It was a great meeting that included excellent student presentations from the Division of Invertebrate Zoology.

I would also like to take the time to thank the 49 volunteer judges for their commitment to the student presentations and their valued service and comments supporting our DIZ students.

This year, 42 students competed for best student paper in 16 oral and 26 poster presentations! The winners of the presentation awards and the Adrian M. Wenner Strong Inference Award for the 2016 SICB meeting are:

**Best Oral Presentation**

Winner

Lindsey Dougherty from the University of California, Berkeley for "Predators and prey: examining flashing as a signal in *Ctenoides ales*, 'disco' clams."

Runner Up

Raphael Ritson-Williams from the Hawaii Institute of Marine Biology for "Coral Bleaching in Hawai'i: A Window into Reefs of the Future."



**Poster Presentation**

Winner

Kaitlyn Lowder from Scripps Institution of Oceanography, UC San Diego for "*Effect of decreased pH and increased temperature on the growth, coloration, and calcification of the grass shrimp Hippolyte californiensis.*"

Runner Up

Blake Jones from the University of San Francisco for "*Cellular and molecular regeneration dynamics in an acoel flatworm.*"

**Adrian M. Wenner Strong Inference Award**

Blake Jones from the University of San Francisco for "*Cellular and molecular regeneration dynamics in an acoel flatworm.*"

Please join me in congratulating these outstanding students for their contributions. I look forward to seeing you at the next meeting in New Orleans Louisiana in 2017!



*Kaitlyn Lowder holding a photogenic marine calcifier, the California King Crab*



*Lindsey Dougherty is hot on the trail of the elusive disco clam*



*Blake Jones uncovers the mysteries of regeneration dynamics in his UCSF lab*



*Raphael Ritson-Williams returns from chasing corals in Hawaii*

### Message from the Libbie Hyman Scholarship Selection Committee Chair

Jennifer Burnaford

Applications for the 2016 Libbie H. Hyman Memorial Scholarship were due on 8 February. We received 35 applications this year! Due to another recent generous contribution by Dr. Jarid Simons to this scholarship fund, we were able to award three scholarships this year. We are deeply grateful to Dr. Simons for his continued support of these enthusiastic students.

A scholarship in the amount of \$1700 has been awarded to Curtis Dinn to support participation in the Taxonomy and Ecology of Caribbean Sponges course at the Smithsonian Tropical Research Institute Bocas del Toro Field Station in Panama. Curtis is a first year M.Sc. student at the University of Alberta in the lab of Sally Leys. His thesis work is focused on discerning the taxonomy and distribution of sponges in the Canadian Arctic, an area of exceptionally high sponge abundance and species richness. The summer field course will give Curtis an opportunity to learn techniques for sponge identification and classification, and the experience with tropical sponges will give him a comprehensive understanding of sponge taxonomy that will provide critical context for his thesis work.

A scholarship in the amount of \$1000 has been awarded to Rachel Shoop, of San Diego State University, to support summer research at the Queen's University Biological Station in Ontario, Canada. Rachel is a first year M.S. student working with Andrew Bohonak. Her

thesis work is focused on documenting the evolutionary relationships between mites in the subgenus *Micruracarus*, a likely polyphyletic group with a complex, parasitic life history. The summer field station experience will give Rachel an opportunity to visit a region of extremely high taxonomic diversity. She will collect more than 14 species of ectoparasitic mites for morphological and molecular comparisons.

A scholarship in the amount of \$1000 has been awarded to Eric Moore, a first year M.S. student in Shannon Pelini's lab at Bowling Green State University, to support summer research at the University of Michigan Biological Station. Eric's thesis work is focused on understanding the effects of temperature on soil-dwelling macroinvertebrates in order to better understand how interactions within invertebrate assemblages that mediate soil Carbon stocks will respond to global climate change. The summer field station experience will give Eric an opportunity to manipulate environmental conditions in mesocosm experiments with realistic community compositions in order to examine how species interactions may be altered under a variety of climate scenarios.

The Libbie H. Hyman Award provides funding to support the first significant field station experience for advanced undergraduates or early career graduate students pursuing coursework or research on invertebrates. This first field station experience is typically a transformative period in the career and life of a student. We deeply appreciate the donations which allow us to support these experiences. As the costs associated with summer field station experiences continue to rise, we are always happy to accept contributions to the Scholarship Fund so that we can increase the amount of support to these deserving students. To contribute, click on Donate to SICB on the SICB home page (<http://www.sicb.org>) or send a check to:

SICB Business Office  
Libbie H. Hyman Memorial Scholarship Fund  
1313 Dolley Madison Blvd., Suite 402  
McLean, VA 22101

Checks should be made payable to SICB and marked as a "Contribution to the Libbie H. Hyman Memorial Scholarship Fund." All contributions are tax deductible. Thanks for your help!



## **Candidates for Elections**

### **Candidates for Divisional Program Officer**

#### **Justin McAlister**



*Justin McAlister, nominee for Program Officer, trying to obtain sea urchin gametes on the island of Sao Vicente, Cabo Verde.*

**Current Position:** Assistant Professor of Biology and Environmental Studies, College of the Holy Cross, Worcester, MA.

**Education:** B.S. in Biology, University of Richmond; M.S. in Biological Sciences, University of South Carolina; Ph.D. in Biology, University of North Carolina at Chapel Hill. Alumnus of SEA Semester (C-139), Sea Education Association, Woods Hole, MA.

**Professional Experience:** Assistant Professor, Department of Biology and Program in Environmental Studies, College of the Holy Cross. Postdoctoral Fellow at Clemson University, Clemson, SC, with extensive fieldwork at the Smithsonian Tropical Research Institute (STRI), Panama. Marine Biologist II at the Marine Resources Research Institute, South Carolina Department of Natural Resources, Charleston, SC (between M.S. and Ph.D. degrees).

**SICB Activities:** SICB and DIZ member (since 2001); routinely serve as Session Chair at Annual Meetings and Judge for Best Student Presentation Awards; nominated for Secretary of DIZ in 2015.

**Other Memberships:** American Microscopical Society; Sigma Xi; SCUBA Organizations: DAN, PADI, AAUS.

**Research Interests:** Marine invertebrate ecology and evolution; larval biology, organism-environment interactions; phenotypic plasticity; energy metabolism; global change biology.

**Goals Statement:** I'm running for Program Officer of DIZ because I'm interested in promoting the study and dissemination of knowledge about invertebrates, generating and discovering new ways to increase student and public awareness of these fascinating creatures, and better connecting invertebrate researchers with each other. I look forward to building on the momentum generated by previous officers of our Division to encourage greater participation from our members and new recruits year-round. I look forward to coordinating symposia that serve to highlight the amazing biology of invertebrates and their importance in our rapidly changing world.

#### **Linda Walters**



*Linda Walters, nominee for Program Officer*

**Current Position:** Pegasus Professor of Biology, Director of the UCF Center for Success of Women Faculty, and Director of Fellers House Field Station, University of Central Florida, Orlando, FL.

**Education:** B.S. in Biology, Bates College; M.S. and Ph.D. in Biology, University of South Carolina.

**Professional Experience:** Postdoctoral Fellowships at University of Hawaii, Manoa, and Laval University, Quebec, Canada. Assistant, Associate and Full Professor positions in the Department of Biology at the University of Central Florida.

**SICB Activities:** Member since 1985; Society-Wide Program Officer (2006-2008); Chair, SICB Nominations Committee (2009-2010); Symposium Organizer (2010); ICB Journal Review Committee (2008-2010); Skinner Scholarship Awards Committee (2007); Student Research Support Committee (2002-2004); Organizing Committee, DIZ Libbie Hyman Auction (2003-2004 and 2008-2009); Chairman, Best Paper/



## SICB Newsletter

Spring 2016 Issue

Poster Awards Committee, DEE (1999-2002); Secretary, DEE (1999-2002); Judge, DIZ and DEE (1998-2004, 2009, 2014-2016); TAL-X Symposium Co-Organizer (2016); Recipient, M. Patricia Morse Award for Excellence and Innovation in Education (2015).

**Other Memberships:** Coastal and Estuarine Research Federation; Society of Conservation Biology; Sigma Xi.

**Research Interests:** My research blends the basic research behind applied marine and estuarine conservation topics, such as oyster reef restoration and living shoreline stabilization, with community engagement to get the job done. Current basic research includes the impact of brown tide on invertebrate larvae, field ecology and molecular genetics of invasive invertebrates, and modeling sea level rise on intertidal taxa. I am also engaged in SOTL (scholarship of teaching and learning) research on embedding authentic research and service-learning into marine biology classes, and my proudest outreach accomplishment is producing six children's storybooks for free distribution, four of which focus on conservation of marine invertebrates (the other two focus on responsible home aquarium stewardship).

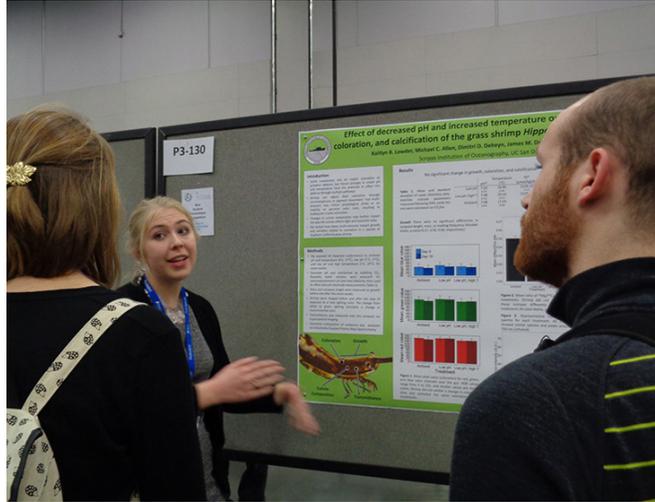
**Goals Statement:** SICB has been my academic home meeting since I was introduced to the society as a M.S. student. Both then and now, I count on SICB for learning about both the breadth and depth of classic and emerging fields in biology. Both regularly impact my teaching and my scholarship. I have developed new collaborations at annual conferences as well as have had the opportunity to catch up with friends from graduate school. Divisions are the heart of the Society, and the Program Officer is the soul of the Division. With counsel, they make incredibly important decisions on symposia and sessions for each annual meeting. Having been the Society-wide program officer for SICB, I know the work involved and I would be happy and excited to participate on behalf of DIZ.



*Lindsey Dougherty videotapes a shark while scuba diving in Rangiroa. Of course, sharks are not invertebrates, but they can eat invertebrates, so we'll let it slide.*



DIZ Chair John Zardus with a lucky six-armed *Asterias forbesi*



Kaitlyn Lowder presents her winning poster at the Portland meeting



DIZ Program Officer Bruno Pernet posing with an invertebrate T-shirt



The 2016 Libbie H. Hyman Auction in full swing



A pair of hand-knit cephalopods from the Hyman Auction