



Division of Comparative Biomechanics

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DCB Officers & Representatives

Mark Denny
Chair 2013-2015

Melina Hale
Chair-Elect 2013-2015

Sharon Swartz
Past Chair 2013-2015

Andrea Ward
Secretary 2014-2016

Joseph Thompson
Program Officer 2014-2016

Nicholas Gidmark
Student/Postdoc Rep 2013-2016

Message from the Chair

Mark Denny, Chair.DCB@sicb.org

Autumn is once again upon us, and even though classes have just started and the trees are only now beginning to turn, it's already time to start planning for this year's annual meeting in West Palm Beach. In addition to the ever-growing flood of contributed papers, there are three society-wide symposia that will be of particular interest to comparative biomechanists.

Frank Fish and Paolo Domenici have assembled an all-star cast of speakers to address the timely subject of "Unsteady Locomotion with Respect to Eco-Design and Mechanics." Topics include everything from the stability of batoids in ocean waves to the role of copepods, jellyfish, and shrimp in ocean mixing, including a perspective on fundamental concepts and future directions. <http://sicb.org/meetings/2015/symposia/aquatic.php>

Tim Higham and Peter Wainwright continue a long history of exploration into the mechanics of feeding by fish with a symposium addressing "New Insights into Suction Feeding Biomechanics and Evolution." Topics include the biomechanics of suction feeding, the ability of prey to sense this form of predation, and what it all means in an evolutionary context. <http://sicb.org/meetings/2015/symposia/suction.php>

Laura Miller and Lindsey Waldrop have organized a society-wide symposium to address a critical need in higher education. "Leading Students and Faculty to Quantitative Biology Through Active Learning" will include different approaches and activities that can be used to integrate more quantitative biology into your courses. <http://sicb.org/meetings/2015/symposia/quantitative.php>

And lastly, Robbie Wilson and Jerry Husak have organized a symposium that will take us a step "Towards a General Framework for Predicting Animal Movement in Nature." This series of talks will introduce the burgeoning field of movement ecology, a productive marriage between biomechanics and behavioral ecology. Speakers from around the world will expound on subjects including neurophysiology, evolution, ecology, and human biology to develop a predictive framework for why animals travel at the speeds they do. <http://sicb.org/meetings/2015/symposia/movement.php>

This year's meeting is the debut for a new approach to the competition for Best Student Paper and Poster. In years past, these presentations have been spread across sessions, with the result that few judges saw the same talks. Informed decisions regarding the relative merits of different presentations were therefore difficult. This year, candidates for Best Student Paper and Poster submitted an extended abstract (to supplement the usual short abstract),



and, based on these extended abstracts, a DCB panel picked the most outstanding submissions. The finalists will present their work in a single session of talks and a single session of posters, each with all the judges in the audience. Not only will this new format make for a fairer assessment, but these competition sessions will also highlight the outstanding work done by students in DCB. So, mark your meeting schedules and plan to attend the contests! If you are interested in being a judge, you can sign up when you register or contact Jake Socha (jjsocha@vt.edu) for details.

Message from the Divisional Program Office

Joseph Thompson, DPO.DCB@sicb.org

The divisional program officers met in West Palm Beach in early October to organize the 2015 annual conference. Rita Mehta (DVM) and I organized 328 biomechanics abstracts into (count 'em!) 33 oral and 15 poster sessions. The oral sessions will span nearly every day of the meeting. We tried to avoid scheduling conflicts among similar sessions and symposia, though some were unavoidable. After this experience, I'll never again complain about my oral presentations being placed into obvious grab-bag sessions with titles such as "Non-Fish Swimming" or "Soft and Squishy Things."

I want to highlight a few items of interest for the upcoming conference. First, the DCB co-sponsored four symposia: (1) Towards a general framework for predicting animal movement speeds in nature, (2) Unsteady aquatic locomotion with respect to ecodeign and mechanics, (3) New insights into suction feeding biomechanics and evolution, and (4) Leading students and faculty to quantitative biology through active learning. Second, we'll unveil the newly formatted Best Student Paper competition. The seven competitors for the oral presentation prize will speak in a single session on the afternoon of January 4. The Best Student Poster competition will be held later that same day. Please mark your calendars. Third, we'll combine forces with the DVM and DPCB for a desert social (with a cash bar) on Monday, January 5, from 9:00-11:00 p.m. And speaking of socials, the famous SICB pub-crawl will return on the evening of Tuesday, January 6. The proceeds from the pub-crawl will benefit student activities at future annual conferences. Finally, don't forget to attend the DCB Business meeting. It is open to all members of the division, especially students.

In closing, I encourage you to check out regional SICB meetings near you. If you are interested in hosting a regional SICB meeting near you, please let me know and I can help arrange advertising on the SICB website. See you in West Palm Beach!

Message from the Secretary

Andie Ward, Secretary.DCB@sicb.org

Happy fall everyone! I hope that all of your semesters are off to a great start and that you are looking forward to a fantastic meeting in West Palm Beach. Congrats to Sheila Patek who will be the DCB divisional chair elect starting this January when Melina Hale takes the reins from Mark Denny.

During the business meeting, we will be voting on the name for our Best Student Presentation competitions. The finalists for the oral competition are Mimi Koehl and Stephen Wainwright. The finalists for the poster competition are Steve Vogel and Stephen Wainwright.

We will also be seeking nominations for two elections in the spring: secretary and program officer. If you are interested in serving on the nominating committee or running for office, please contact me or one of the other officers.

I would also like to remind our members of two great digital resources for SICB members. The SICB Digital Library contains a fantastic repository of educational materials that pertain to biomechanics (<http://sicb.org/dl/biomechanics.php3>). Please add to this database if you have materials that you think others might find useful. We also have a researcher's database for members of DCB (<http://sicb.org/divisions/DCB/researchers.php3>). This is a great opportunity for faculty who are looking to attract potential students, or students and post-docs who would like to publicize their work. Please contact me if you would like to contribute to the researcher's database.

If you have any events that you would like advertised, please let me know and I will incorporate them either into the newsletter or submit the information to the SICB member update.



Southwest Regional Meeting (Held at UC Irvine)



Attendees at the southwest regional meeting



Best student paper winners Susan Finkbeiner (UC Irvine, Best Long Talk), Jordan Balaban (UC Irvine, Best Short Talk), and Nicholas Schwartz (CSU San Bernardino, Best Undergraduate Talk).

Biologists in southern California hosted a regional meeting for DCB and DVM members for the past two years, thanks to the efforts of Tomasz Owerkowicz (CS San Bernardino) and Tim Higham (UC Riverside). This year, the UC Irvine **Center for Comparative and Evolutionary Physiology** played host to the meeting, organized by the members of the McHenry Lab and generously supported by the UCI Office of Research. In the interest of attracting some of the wealth of scientists in related fields, the meeting was rebranded as the Southwestern Organismal Biology Meeting (SWOB). The meeting was well-attended by students and faculty, with a total of 71

attendees (pictured). As in past years, this student-friendly gathering featured awards for the best student presentations. Anyone interested in receiving email updates about this meeting in future years should contact Matt McHenry (mmchenry@uci.edu).

Southeast Regional Meeting (Held at UNC Chapel Hill)

The Southeast Regional SICB meeting held Saturday, October 25th in Chapel Hill, North Carolina was a great success. We had 52 attendees and 37 speakers who traveled from as far away as Philadelphia, Baltimore and Atlanta to give 6 minute oral presentations (+2 minutes for questions). Coffee breaks and a beautiful sunny day for lunch on the lawn provided ample time for discussion and networking.



Ty Hedrick addresses the attendees at the southeast regional meeting



Northeast Regional Meeting (Held at UMass Dartmouth)

Kathryn Kavanagh and Ben Winslow organized the NE regional DVM/DCB meeting, which was held on November 1st at UMass Dartmouth arts campus in New Bedford, MA. The meeting featured a visit to the New Bedford Whaling Museum and a post-meeting social at the Ocean Explorium. The meeting attracted 90 researchers from 13 different universities across the northeast, including 36 oral presentations. As usual, lots of interesting discussion was stimulated, and everyone had a great time!



Attendees at the northeast regional meeting enjoy the social at the Ocean Explorium

