



## Division of Comparative Biomechanics

### *In this newsletter*

- [Message from the Chair](#)
- [Message from the Program Officer](#)
- [Message from the Secretary](#)

### DCB Officers & Representatives

**Robert Full**  
Chair 2006-2011

**Sharon Swartz**  
Chair-Elect 2009-2011

**Miriam A. Ashley-Ross**  
Secretary 2006-2012

**Frank E. Fish**  
Program Officer 2006-2010

**Gabriel Rivera**  
Student/Postdoc Representative  
2007-2010

**Adam P. Summers**  
ICB Editorial Board Representative  
2007-2012

### Message from the Chair

*Robert Full*

#### *Membership*

The Division of Comparative Biomechanics has now surpassed 600 members adding over 100 more members since the Spring of 2009.

#### *Meeting*

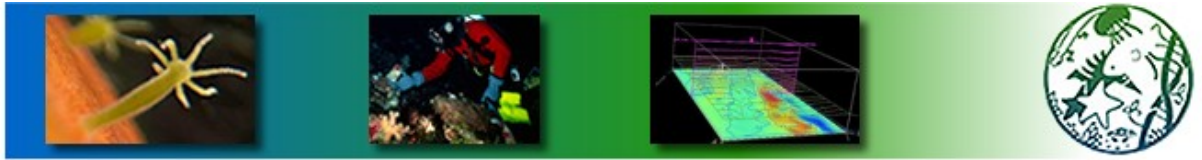
We look forward to the Seattle Meeting. The number of presentations and posters submitted continues to increase as does the number of students competing for best paper and poster awards. We are particularly excited to support two symposia, "Mechanics without Muscle: Evolutionary Design of Macrophytes" organized by Patrick Martone and "Identifying the Architectures that Regulate the Development, Function, and Evolution of Fish Body & Fin Shape: a Truly Grand Challenge" organized by Jeff Walker.

#### *Elections*

You have elected a new Division Chair-Elect, Sharon Swartz, and Program Officer, Steven Deban. We welcome them and are ready to support their efforts! We thank John Long and Cheryl Wilga for their participation. Our division is really up and running, and will be in good hands. It has been an honor and privilege to start the new division. I especially want to thank Miriam Ashley-Ross, Frank Fish, Lou Burnett, Sally Woodin, Marvalee Wake and Brett Burk for all their hard work and advice. My goal in starting the division was to give comparative biomechanics a home. The quality and creativity of the science presented at our annual meetings by the next generation of young researchers in comparative biomechanics confirms that the Society of Integrative and Comparative Biology is the right place.

#### *Perspective*

I want to thank everyone for the feedback given to NSF with respect to the future direction of integrative and comparative biology. Although time was short, I thank everyone for the input we received toward the publication in the SICB journal, *Integrative & Comparative Biology*, titled "Grand Challenges in Organismal Biology," by Kurt Schwenk, Dianna Padilla, George Bakken & Robert Full (July issue).



### Awards

I am excited to announce that the donations to the **Carl Gans Award Fund** have already exceeded the minimum requirement to formally establish the award. I want to thank everyone for their generous donations, especially given this time of financial hardship! The details of the award are being finalized and we should have the first award given at the 2011 meeting. Thanks again to Robert Dudley, Ray Huey and David Carrier.

### Upcoming Conferences

I bring to your attention two upcoming conferences.

#### Society of Experimental Biology

Annual Main Meeting 2010. The SEB is pleased to announce that in 2010 its Annual Main Meeting will take place at the Clarion Congress Hotel in the city of Prague. Open to members and non-members alike, the meeting will give you the opportunity to attend cutting edge scientific and education sessions as well as the chance to network with a range of biologists from all over the world.

In particular, three sessions are relevant to our division.

#### *Function and Control of Elastic Systems*

Dates: 2nd July (pm only) - 3rd July

Organized by: Thomas Roberts

Contact: [Thomas\\_Roberts@brown.edu](mailto:Thomas_Roberts@brown.edu)

#### *General Biomechanics*

Dates: 30th June - 2nd July (am only)

Description: The 'general biomechanics session' brings (young) scientists together describing their research with the mechanics of the most diverse topics in biology. From insect flight to suspension feeding, from horse loco-

motion to the mechanics of water transport in plants, from material properties to kinematics of bird flocks, from muscle mechanics to..., all topics find their place in the session which is traditionally attended by a large and broadly interested audience. Moreover, five years ago, they started a new initiative: General Biomechanics Best Poster and Best Presentation prizes (3 for each category). Yet another reason to join them in Prague next summer.

#### *The Challenge of Measuring Energy Expenditure: Current Field and Laboratory Methods*

Dates: 3rd July

Organized by: Lewis Halsey

Contact: [L.Halsey@roehampton.ac.uk](mailto:L.Halsey@roehampton.ac.uk)

Speakers Include:

Claus Bech (Norwegian University of Science and Technology) - 'Open-flow respirometry: choosing the correct set-up'

Jonathan Green (University of Liverpool) - 'The heart rate method: perspectives, progress and penguins'

Description: A number of methods are presently available for measuring/estimating energy expenditure in animals, some of which are more widely known and used than others. All these methods have provided insight into animal energetics either in the laboratory and/or in the field, but all come with pitfalls and require expertise to be used effectively and accurately. This symposium looks at advances in our knowledge of animal metabolism through the employment of techniques to estimate energy expenditure, the development of those techniques, their strengths and limitations, and the issues surrounding their valid application.

#### The American Society of Biomechanics

August 18-21, 2010. The 33rd Annual



Meeting of the American Society of Biomechanics. Providence, Rhode Island. Hosted by Brown University and Rhode Island Hospital

Meeting Chairs: J.J. Trey Crisco and Tom Roberts. Head Local Committee: Doug Moore. Program Chair: Darryl Thelen.

Providence is a city of 170,000, combining the charm of a small New England town with the energy of a thriving city. The city and the surrounding area offer many opportunities for sightseeing and recreation, from the nearby Newport Mansions to Rhode Island's scenic coastline, to beautiful Block Island and Cape Cod. Just an hour from Boston and three hours from New York. Providence boasts an award-winning airport (T.F. Green, PVD) ten minutes from downtown, fast and reliable Amtrak train service, a facile bus system, and convenient highway access.

The Scientific Program will consist of the traditional biomechanics topics along with targeted sessions in emerging areas. Abstract submission dates will be announced in early 2010. The conference will be held at the Rhode Island Convention Center in the heart of downtown Providence, surrounded by hotels, restaurants, stores, historical and cultural attractions, all within a few minutes walk.

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### **Message from the Program Officer** *Frank Fish*

The last touches are being put on the program for the January meeting of SICB in Seattle. It looks to be a really big meeting with 1318 abstracts. The meeting is set in the Seattle Sheraton and Washington State Convention and Trade Center in the middle of downtown Seattle. The business meetings and socials will be held in the hotel and all oral sessions, posters and exhibits will be in the convention center. The meeting site can be

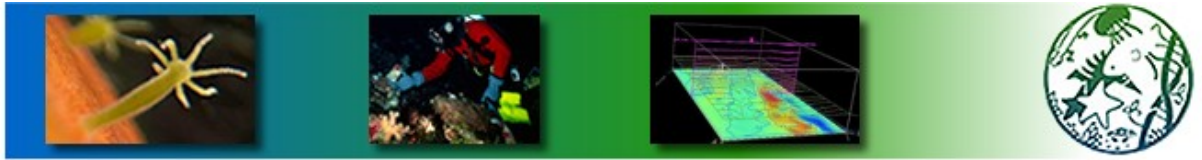
reached from the airport using a taxi for over \$30 or the Gray Line bus for \$11 one-way or \$18 round trip. The bus takes about 45 minutes to reach the hotel. The hotel is centrally located and close to attractions such as the Seattle Aquarium (\$18 for adults) and the waterfront. You can even ride a ferry across Puget Sound (below). There are plenty of restaurants in the area. Seafood such as Dungeness crab and salmon are two of the local delicacies.



Arrival is on Sunday, January 3. The contributed paper sessions begin on Monday, January 4 and end by noon on Thursday, January 7. The business meeting for the Division of Comparative Biomechanics (DCB) will be on Monday (1/4) evening and the DCB social will be on Tuesday (1/5). As we did at the last meeting, the social will be shared with the Division of Vertebrate Morphology.

DCB is sponsoring a symposium on the biomechanics of plants titled "Mechanics without Muscle: Evolutionary Design of Macrophytes" that was organized by Patrick Martone. This promises to be an excellent symposium. DCB is also co-sponsoring a symposium on fish body forms, organized by Jeff Walker.

As you make your plans to come to the meeting, you may be familiar with a number



of myths about Seattle. Let me give you the truth and put these myths to rest. First, that it rains all the time in Seattle. This is not true; the sun does shine there as you can see from the picture of the aquarium and Space Needle (below). It is not a rare event. So there is no



foundation to rumor that the populace of Seattle upon seeing the sun performs ritual sacrifices to appease the great ball of fire in the sky. Although there are rain-free days, it would be a good idea to bring an umbrella and a raincoat. Another myth is that there is a Starbucks on every street corner. This is patently untrue. Remember that there are four corners at any intersection and thus only one Starbucks for every four corners. Another falsehood is that Microsoft owns all of Seattle. The truth is that Microsoft owns so much more and is bent on world domination. Finally, that Bigfoot can be seen in the local forests. This is just case of mistaken identity and in reality, Bigfoot is confused with a guy by the name of Mitch, who bought a 7-11 in Redmond with money he earned as a Vegas Elvis impersonator.

This will be my last meeting as DCB program officer. It has been my pleasure to serve the division. The new program officer will be Stephen Deban and I am sure he will do a superlative job at organizing future meetings. If you have ideas for future symposia, please come and meet with Stephen or me in Seattle

or contact Stephen by email to discuss the possibilities and see what opportunities there are for funding both within and outside the society.

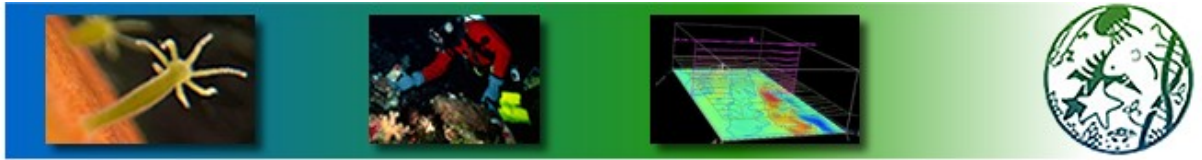
I look forward to seeing you all in Seattle.

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## Message from the Secretary

*Miriam Ashley-Ross*

It's hard to believe, but the word is that the Seattle meeting will be even better attended than Boston was last year, with over 1300 abstracts submitted! I recommend we all bring our running shoes – Boston's meeting was a combination scientific extravaganza/fitness marathon, as we ran from one end of the hotel to the other to try to make presentations in opposing sessions, and I suspect that Seattle will be the same (with so many papers, how could it not?). The good news is that biomechanists will not lack for interesting things to see – whichever session you happen to be in will be sure to have great talks. Speaking of great talks, we're sure to have loads of competitors for Best Student Paper and Best Student Poster (we don't have the exact numbers of competitors yet, but last year we had 33, and this year will likely have more). So I'd like to ask faculty/postdoc members of the Division to volunteer to be judges. What do the judges do? View the talks/posters to which you are assigned, and evaluate them according to the criteria on the form. Ask the students questions about their research, and encourage them. Why should you volunteer? To start with, you'll be seeing some of the best presentations of the meeting, and talking with enthusiastic young scientists. You'll also be letting them know that their efforts are appreciated and recognized, making it more likely that they'll remain DCB members. In short, it's a win-win situation – if you are willing to help, please contact our Division Chair, Bob Full ([rjfull@berkeley.edu](mailto:rjfull@berkeley.edu)).



## *Election Results*

In April we held a special election to start getting the Division on track with the "normal" election schedule. Sharon Swartz and John Long were candidates for Division Chair-Elect, and Steve Deban and Cheryl Wilga were candidates for Program Officer. Sharon and Steve were elected; congratulations to them, and thanks to John and Cheryl for their willingness to serve! Sharon and Steve will take office at the end of the Seattle meeting. Steve will be running the show as Program Officer next year; Sharon will be Chair-Elect until the 2011 meeting, at which time she will take over as Chair of the Division.

## *Researchers Database*

This is still a terribly underused section of our Divisional website. Currently, (and shockingly!) yours truly is the only person listed! Please, please send me a short blurb outlining your research interests, along with a picture of your experimental organism (or perhaps illustrating a technique that you use) so we can start filling out the ranks in the database! Word files are fine, as is plain text in an e-mail. Pictures should be in JPEG format, if possible.

See you all in Seattle!