



## Division of Phylogenetics and Comparative Biology

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### DSEB Officers & Representatives

**Patrick O'Connor**  
Chair 2010-2012

**Anne M. Maglia**  
Past Chair 2010-2012

**Todd H. Oakley**  
Secretary 2010-2013

**Michael E. Alfaro**  
Program Officer 2009-2012

**Nicole Cox**  
Student/Postdoc Representative  
2009-2012

**Richard Mooi**  
ICB Editorial Board Representative  
2008-2014

### Message from the Chair

*Patrick O'Connor*

SICB 2012, to be held in Charleston, South Carolina, is approaching rapidly. This will be the inaugural meeting in which we will formally be referred to as the Division of Phylogenetics and Comparative Biology (DPCB)! Thanks to those divisional members who championed the cause for instituting a division name that better reflects the primary activities of many researchers in our division...and no doubt many others among the SICB membership more generally. Also, a special thanks to those who participated in the spring elections this year. Not only did the spring election involve the divisional name change and some necessary bylaws alterations, but importantly, we elected two new officers within our group. Michael Alfaro (UCLA) has been chosen as the next chair of the division and Kerin Claeson (Ohio University) will be the next secretary for DPCB. Kerin and Michael begin their 'secretary-elect' and 'chair-elect' positions at the close of the 2012 meeting in Charleston and will take full responsibility for these positions in 2013. Congratulations and thanks to Michael and Kerin for agreeing to help out in these important roles.

Please plan to attend the divisional business meeting in Charleston in order to share your ideas and/or become more involved with divisional activities, including how best to develop symposia around the latest research in phylogenetics and comparative biology.

If you have not done so already, please visit the DPCB Researcher Database (<http://www.sicb.org/divisions/DSEB/researchers.php3>) NEED TO UPDATE LINK and contribute your own profile so that others can become more aware of the research-diverse membership of our division. This is done by sending a photo, a title, and a short description to the divisional secretary.

Please also consider becoming involved with the division by helping us **judge** our best student paper competition. You can either sign up during the on-line registration or by contacting Mike Alfaro directly.

Finally, please let us know what you are doing in the lab, field, or museum. We have different mechanisms at our disposal to help profile the research of our members (including the DPCM database indicated above)—this applies to students and post-doctoral researchers, many of who either are or will be on the job market in coming years. Every little bit helps. As you may



have seen in our spring contribution, we have begun highlighting members' research as a standard part of the DPCB newsletter.

Have a great fall and hope to see you in early 2012.

## Message from the Program Officer

*Mike Alfaro*

Dear Members of DPCB,

We are looking forward to a fantastic meeting in Charleston. The venue is great! The Embassy Suites are very large and could accommodate three or four people if you are looking to save some money. We also have a slate of interesting symposia including Society-wide programs on plasticity, evolution, and innovation and marine dispersal. Also this year we have the possibility of a **babysitting service**. If you would like this service, please fill out the babysitting survey form on the registration site. The Executive Officers will announce in November whether there will be babysitting based upon the responses received, so let us know as soon as possible if you would like to see it. There will be a complimentary shuttle service to take registrants back and forth to downtown Charleston for dinner and sightseeing the evenings of January 4, 5 and 6. The shuttles will run from 6:30-11 pm and will leave from the Convention Center. Check the website for "Notes From the Underground" regarding restaurants and things to do and see as the meeting gets closer.

## Message from the Secretary

*Todd Oakley*

An ongoing challenge for me is to encourage members to submit their biographies and pictures for the researcher database. I'll start trying to ask people in person, but if you're reading this, why not take a few minutes right now and send me a photo and a bio.

I would also like to encourage all students to participate in the "best student presentation" competition. I will be trolling upcoming meetings for outstanding student talks to encourage those presenters to come to SICB. If you know (or happen to be) an outstanding student, encourage her or him to compete.

## DSEB Members In the News

Kevin Cocot, last year's winner of DPCB's Best Student Presentation, is in the news for his research on mollusk phylogeny.

Here is part of a news story from [7thspace.com](http://7thspace.com) describing Kevin's work with DPCB members Ken Halanych and Johanna Cannon.

"Seemingly simple animals such as the snail and squid have ransacked the genetic toolkit over the last half billion years to find different ways to build complex brains, nervous systems and shells, according to



Kevin Cocot



## SICB Newsletter

**Fall 2011 Issue**

an international team of researchers, including multiple members of DPCB.

Using genomics and computational approaches, the scientists have reconstructed the evolutionary history of representatives of the phylum Mollusca, which includes more than 100,000 living species, ranging from giant squid to microscopic marine worm-like creatures.

One of the surprising outcomes of the study, recently published in the journal *Nature*, suggests that the formation of a complex brain in mollusks has independently occurred at least four times during the course of evolution.

"Nature did many experiments for us over the past 500 million years, using different molecular tools to build complex brains by independently centralizing smaller neuronal structures," said Leonid L. Moroz, Ph.D., a member of the department of neuroscience with the UF College of Medicine. "The octopus, for example, is very intelligent. It can learn by watching, and it has one of the most complicated brains of any animal without a backbone. And it evolved completely independently from us, using different genes, gene regulators and, in part, different neuronal signaling molecules."

By looking at the genomic data collected from the various classes and families of mollusks, the scientists were able to better understand the relationships between aplacophorans, which are worm-like creatures; gastropods, which include slugs and snails; cephalopods, such as octopuses and squids; and a variety of other shell-producing creatures.

Researchers extracted RNAs from dozens of marine organisms for deep genomewide sequencing and backed that information with all publicly banked data, revealing for the first time a blueprint of the molluscan life history on Earth.

Every major lineage of mollusk was represented in the analysis except for a class called monoplacophorans, which are tiny, shelled animals that live at the bottom of the deep sea and are too scarce to be captured. Kenneth M. Halanych, Ph.D., and graduate students Kevin M. Kocot and Johanna Cannon of the department of biological sciences at Auburn University led the computational analyses. "

If you are a DPCB member 'in the news', please let us know, by sending an email to DPCB secretary [Oakley@lifesci.ucsb.edu](mailto:Oakley@lifesci.ucsb.edu). We'd love to feature your work in our next newsletter.