

## Division of Phylogenetics and Comparative Biology

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### DPCB Officers & Representatives

Kerin Claeson  
*Chair 2016-2018*

David Blackburn  
*Secretary 2016-2019*

Todd Oakley  
*Program Officer 2015-2018*

Jonathan Chang  
*Student/Postdoc Representative  
2015-2018*

### Message from the Chair

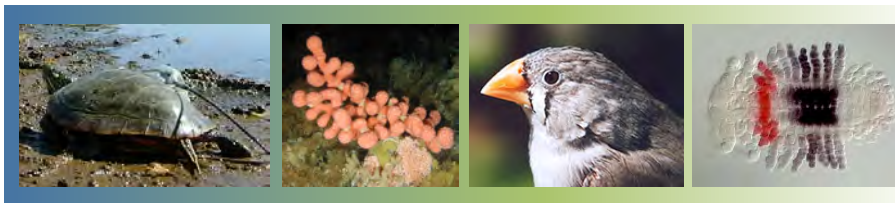
Kerin Claeson, [chair.dpcb@sicb.org](mailto:chair.dpcb@sicb.org)

Well, New Orleans was certainly among the best meetings I've ever attended and I even appreciated the walk most of the time to and from the Conference Center. It was a great way to start 2017. This is thanks in part to our Wake Best Student Presentation Award Session, which was stellar this year. Congratulations to our Best Talk recipient, Josefin Stiller, Best Talk honorable mention, Andrew Swafford, and our Best Poster recipient, Nicole Yen. A thank-you to our judges as well for taking the time from the meeting to provide constructive feedback for our student members.

The DPCB business meeting was poorly attended this year, with only seven non-officer divisional members. How can we improve upon these numbers? Some of the newest ideas came from a non-division-member who was one of the students providing technical support during the meeting. It is clear that social media is changing and we need to be creative when spreading the word about our division and its value to integrative and comparative biology. We are therefore soliciting division members who can help with collecting news stories about phylogenetic and comparative biology to share with the broader science community. Are you aware of a great paper? Tell me, David Blackburn, and Jonathan Chang so we can tell more people. If you have your own Twitter and/or Instagram following, please use #DPCB when sharing something relevant to the division. Remember, we do more than build trees — so let other people know that!

Haley O'Brien and I have been developing a short list of potential speakers for a symposium we hope will run at the 2019 meeting about #DPCB, its methods, and its outcomes. We envision a hybrid workshop/lecture platform with a diverse group of speakers, taxonomic interests, and big-picture questions. The common theme is, "Phylogenetics informs data and should not be ignored." So, ATTN: SICB Division Chairs and Program Officers, please let me, David Blackburn, and Todd Oakley know if you would like to sponsor this symposium! All other members, if there is a topic you'd most like to learn about, please tell us and we'll do our best to include it.

Finally, faculty #DPCB members, are you interested in taking a student to lunch on the division? We are looking for our more senior membership to buddy-up with our student members to share experiences and advice on how to navigate the field of phylogenetic comparative biology, be marketable in the current job climate, and more. Contact me and David Blackburn if you will attend SICB 2018 in San Francisco and have time for breakfast, lunch, or coffee with one or two students.



Many thanks for showing your support to the Division of Phylogenetic and Comparative Biology.

Your Chair,  
Kerin Claeson

### Message from the Secretary

David Blackburn, [Secretary.dpcb@sicb.org](mailto:Secretary.dpcb@sicb.org)

Thank you to the students who participated in the Wake Award Competition during the SICB Annual Meeting in New Orleans in January. This year we were fortunate to have all of the student talks for the Wake Award in a single session. Congratulations to our two winners, Josefin Stiller for "Best Talk" and Nicole Yen for "Best Poster." Notably, both winners are from Greg Rouse's lab of Oceanography at the University of California, San Diego! We also congratulate Andrew Swafford from the University of California, Santa Barbara, for receiving an honorable mention for his talk in the Wake Award symposium. DPCB is proud of our student participation and we look forward to next year's competition in San Francisco for similar high quality presentations.

Several DPCB members have volunteered to collaborate on revision of the "Career Information" webpage that reflects our field. If you are interested to participate, please contact me. This is an excellent opportunity to articulate why students, colleagues, and the public should care about the field of phylogenetics and comparative biology.

I'd like to again encourage DPCB members to provide (or update existing) profiles for the DPCB Researchers Database (<http://bit.ly/DPCBresearchers>). An image and a short paragraph about your work provide a way for interested SICB members to find about your work and be directed to your webpage, etc. for more information.

Interested to find jobs in Phylogenetics and Comparative Biology? Please help direct DPCB students and postdocs to SICB's 'Jobs & Fellowships' page (<http://bit.ly/SICBjobs>). Because our interests tend to cut across many SICB Divisions, there are many opportunities posted here that may be of interest to our DPCB members.

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

Jonathan Chang, [jchang641@gmail.com](mailto:jchang641@gmail.com)

Take DPCB home with you! Stay connected with the community and follow us on:

Facebook: <https://www.facebook.com/SICBDPCB/>

Twitter: [https://twitter.com/sicb\\_dpcb](https://twitter.com/sicb_dpcb)

Instagram: [https://www.instagram.com/sicb\\_dpcb/](https://www.instagram.com/sicb_dpcb/)

Remember to use #DPCB if you're sharing relevant material on social media!

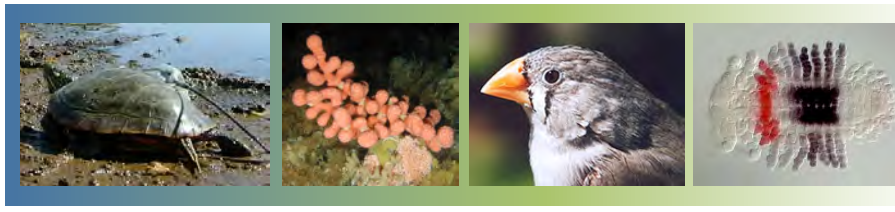
Have a great paper or photograph to share? Send a Direct Message and we'll get it distributed!

### Winner of Wake Award for Best Student Oral Presentation



Josefin Stiller, Scripps Institution of Oceanography, University of California San Diego

Josefin Stiller is currently a PhD candidate at Scripps Institution of Oceanography at the University of California San Diego. She received her BSc from Free University Berlin and her MSc in Organismic Biology and Evolution from Humboldt University Berlin, Germany. For her dissertation, she is using high-throughput sequencing to investigate multiple levels of divergence in a group of marine fishes, the Syngnathidae, which comprise seahorses, pipefishes and seadragons. The work investigates broad phylogenetic relationships of syngnathids, over intra-specific divergences between populations, to sibling relationships between individuals. For the Wake Award Symposium, she was presenting on the phylogeographic patterns of the enigmatic seadragons along the temperate coast of Australia. Range-wide sampling of two species



and hundreds of genetic markers revealed uneven distribution of genetic diversity, evidence for range expansions and the disruptive influence of a former land bridge. In the course of the work, a serendipitous find led to the discovery of a new species of seadragon.

### Winner of Wake Award for Best Student Poster Presentation

*Nicole Yen*, Scripps Institution of Oceanography, University of California San Diego



Nicole Yen is currently a PhD candidate at Scripps Institution of Oceanography at the University of California San Diego. She also received both her BS and MS from the University of California San Diego. Her research focuses on systematics and biogeography of annelid worms, including

at vents, seeps, and whalefalls in the Pacific.

### Minutes from DPCB Division Meeting

Minutes from our most recent division meeting at the SICB Annual Meeting in New Orleans, Louisiana are available on the SICB website: <http://www.sicb.org/divisions/DPCB/DPCBMeetingMinutes2017.pdf>



### Nominees for DPCB Chair-Elect

#### David C. Blackburn



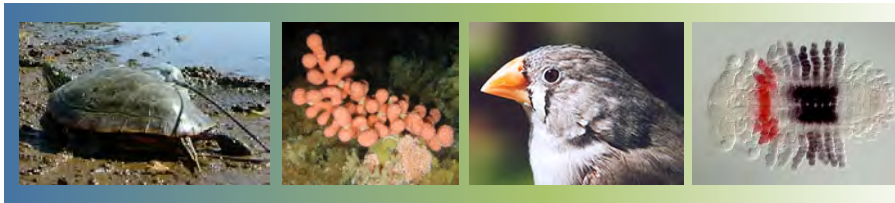
**Current Position:** Associate Curator of Herpetology, Florida Museum of Natural History, University of Florida, Gainesville, FL; <http://www.blackburnlab.org/>

**Education:** BA (2001), University of Chicago; PhD (2008), Harvard University.

**SICB Activities:** Affiliate of DPCB and DVM; DPCB Secretary 2015–2019.

**Research Interests:** My lab's research focuses on the diversity and evolution of amphibians and reptiles, with a special focus on both frogs and African biogeography. Using museum collections and microCT scanning, we are currently working to generate digital anatomical resources representing major lineages of amphibians that will be freely available for science and education. With these resources in hand, we are investigating large-scale patterns of phenotypic change across deep time, including providing fresh perspectives on extinct taxa.

**Goals Statement:** As Chair, I will work to continue promoting student involvement in DPCB, especially through the Wake Award for best student talk and poster. Over the past few years, we have been successful in attracting excellent student presentations and growing this into a competitive group of talks and posters. DPCB also strongly needs to foster increased involvement from its members, many of whom identify primarily with a different SICB division. Further growing participation of students, postdocs, and junior faculty via training workshops and social events is important for the future success of DPCB.



**Lars Schmitz**



**Current Position:** Assistant Professor of Biology, W.M. Keck Science Department, Claremont McKenna, Pitzer, and Scripps Colleges, Claremont, CA; <http://schmitzlab.info>

**Education:** BSc (2000) and MSc (2003), University of Bonn; PhD (2008), University of California Davis.

**SICB Activities:** Affiliate of both DPCB and DVM.

**Research Interests:** I am an integrative biologist who is interested in explaining the uneven distribution of diversity across the tree of life. What are the mechanisms that have shaped lineages of organisms with tremendous success in terms of morphological and functional diversity, while other lineages show little variation? My work is founded on the idea that functional morphology is a key to a better understanding of the origins of diversity because it establishes linkages between organismal structure, function, and major niche dimensions. The main study system of my work is the vertebrate eye, a wonderfully complex structure whose performance is determined by many different factors that reflect both phylogenetic history and evolutionary adaptations to the photic environment. I have a unique perspective on the analysis of diversity patterns because I combine paleontological data across large temporal scales with phylogenetic inferences from living organisms in order to gain a more integrative understanding of evolution.

**Goals Statement:** The Division of Phylogenetics and Comparative Biology (DPCB) represents one of the most exciting research areas in biology. Well-supported, time-calibrated molecular phylogenies and new phylogenetic comparative methods provide fantastic tools for testing a huge array of dif-

ferent hypotheses. "Tree thinking" is very important for almost all aspects of SICB-related research and teaching. DPCB is therefore in a unique position to establish strong links between all divisions of SICB. The shared theme of "tree thinking" allows us to assemble cutting-edge symposia that should be of interest to all SICB members, and phylogeny-themed workshops that reflect the latest method developments will help bring our students to the front of the pack. Many efforts have been undertaken in this area over the last few years, and DPCB can play a critical role in making products such as guides and tutorials broadly available to all members of our community. I would love to have the opportunity to represent and guide our division, helping to synthesize an integrative approach to research and education with tree thinking at its core.

**Nominees for DPCB Secretary-Elect**

**Eric McElroy**



**Current Position:** Associate Professor and Assistant Chair, Department of Biology, College of Charleston, Charleston, SC; <https://sites.google.com/a/cofc.edu/mcelroy-lab/>

**Education:** BS (2003), Ohio Northern University; PhD (2008), Ohio University.

**SICB Activities:** Affiliate of DPCB, DVM, DEE, and DCB; Member of SICB student support committee (2012–2015); Reviewer for SICB student presentations (several years).



**Research Interests:** My lab studies the ecology and evolution of organismal form and function. Current projects focus on 1) the effects of parasites on host physiological performance, 2) ecology of barrier island lizards, 3) ecology and evolution of locomotor performance, with a focus on burst locomotion in lizards. We combine field and lab studies and use a comparative approach.

**Goals Statement:** I'd like to see DPCB do two things which are both focused on supporting students: 1) continue to support workshops on statistical approaches to comparative biology, something DPCB has done for several years, 2) initiate an event a local place of interest to bring together students and faculty to discuss scientific careers. #2 is inspired by the 'Beer and Brains' event held by DEE for the past few years - I found that to be a really useful venue for students to get a perspective on life in academia.

**Haley D. O'Brien**



**Current Position:** Assistant Professor, Department of Anatomy and Cell Biology, Oklahoma State University Center for Health Sciences, Tulsa, OK; <http://haleyobrien.net/>

**Education:** BS (2009), College of Charleston; PhD (2016), Ohio University.

**SICB Activities:** Affiliate of DPCB, DVM, and DEE; Reviewer for SICB student presentations (2017).

**Research Interests:** My research focuses on the role that unique thermoregulatory capabilities have played in the evolution of large-bodied mammals across periods of Cenozoic climate change. I use selective brain cooling in artiodactyls and carnivores as a model system, and employ macroevolutionary modeling and phylogenetic comparative methods to generate inferences regarding the interface between organismal physiology and environmental shifts across deep time scales.

**Goals Statement:** The role of DPCB Secretary brings a unique opportunity to broaden the reach and impact of the division within SICB at large. As an officer, I would emphasize the utility of phylogenies in comparative biology and evolutionary studies. Currently, the SICB Research and Education Resources database does not include systematics or phylogenetic comparative methods as an easily accessible subject. Visibility of DPCB could be increased by contributing methodological guides and tutorials to the RER database. Updates to the database could be shared via the newsletter and divisional webpage. Both systematics and phylogenetic comparative methods are rapidly changing fields. A centralized, up-to-date, and curated collection of phylogenetic methods is needed to promote their application across nearly all divisions of this highly interdisciplinary society.