

Division of Comparative Physiology & Biochemistry

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DCPB Officers & Representatives

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Chair 2014-2016

Inna Sokolova
Chair-Elect 2015-2016

Donald Mykles
Past Chair 2014-2016

Jason Podrabsky
Program Officer 2015-2017

Deborah Lutterschmidt
Secretary 2014-2016

Natalie Pitts
Student/Postdoc Representative 2014-2017

Message from the DCPB Chair

Stephen Secor, Chair.DCPB@sicb.org



Stephen Secor, University of Alabama

Greetings from the South (Tuscaloosa, Alabama). While Tuscaloosa struggled with our nearly one inch of snow for a day in February and a couple of weeks of freezing temperatures, I suspect that for many of you further north, this winter was a bit more challenging (if we could only go back to West Palm Beach). Speaking of which, this year marked another terrific SICB meeting. The West Palm Beach venue was extremely well orchestrated with nicely organized sessions and events and a long line of luxury buses shuttling everyone back and forth to their hotel. Add the warm weather, great food, and lots of lizards (OK, mostly invasive species) scurrying about – it was a thoroughly enjoyable meeting. By the end of the meeting there was even discussion of a return to West Palm Beach.

This year, DCPB members contributed to nearly 15% of the presentations, oral or poster, at the meeting. In addition, our division was responsible for a significant proportion of the students, both undergraduate and graduate, attending and presenting in West Palm Beach. Many of these students were supported (with housing) by the Charlotte Mangum Student Support Program, a program that sets us apart from other societies in supporting student attendance and participation at our meetings.

At this year's meeting, DCPB co-sponsored six symposia, including the SICB-wide symposia "Towards a general framework for predicting animal movement speeds in nature" and "Leading students and faculty to quantitative biology through active learning," together with the symposia "Physiology in changing landscapes: an integrative perspective for conservation biology" (with DCE), "Integrative biology of the Crocodylia" (with DAB, DEDB, DNB, DEE and DPCB), "Neurohormones, brain and behavior: a comparative approach to exploring rapid neuroendocrine function" (with DCE and DAB), and "Chemicals that organize ecology: towards a greater integration of chemoreception, neuroscience, organismal biology, and chemical ecology" (with DNB and DIZ).



In addition to this year's SICB symposia, DCPB supported a plenary lecture (by Dr. Patricia Schulte) and six symposia last fall at the APS Intersociety meeting "Comparative Approaches to Grand Challenges in Physiology" held in San Diego. DCPB will also be supporting the symposium "Phenotypic flexibility of energetics in a seasonal world" to be held at the ICCPB meeting in Kraków, Poland, August 23-28, 2015. We are fortunate that our division has such strong finances and membership that we can support each year multiple symposia at SICB and other meetings.



Stephen Secor, DCPB Chair, presents Jodie Rummer with the 2015 Bartholomew Award

The 2015 meeting was also highlighted by a wonderful presentation by this year's George Bartholomew Award winner, Jodie Rummer, a senior research fellow and assistant professor at the ARC Centre of Excellence for Coral Reef Studies at James Cook University in Australia. Dr. Rummer presented her research on the adaptive traits of coral reef fishes and how they respond to a variety of environmental stressors stemming from climate change. Jodie was selected from a near record number of nominations by the selection committee composed of Sheila Patek (Chair), Adam Summers, Alison Sweeney, Marty Martin, and Robert Cox. DCPB again thanks John Lighton and Robin Turner of Sable Systems International for their continued gracious support of the George Bartholomew Award.

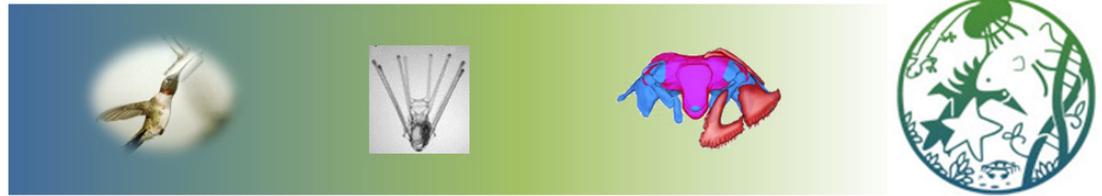


Jodie Rummer presents her research during the Bartholomew Award special lecture.

Each year, DCPB names the best student presentation competition in honor of an eminent physiologist who has passed. This year's award, the Robert Boutilier Award, was awarded to Tim Crombie (University of Florida) for best student oral presentation and to Lisa Treidel (Illinois State University) for best student poster presentation. I offer my sincere congratulations to these two students for their excellent presentations and to all students who participated. We are grateful to Ana Jimenez for taking on the task this year of coordinating the judging of the student oral and poster presentations and to all Society members who served as judges – Thank you very much!!!

At the SICB business meeting this year, we thanked Jonathon Stillman for his two-year service as Program Officer and welcomed our new Program Officer, Jason Podrabsky. Jason will serve as Program Officer for the next two years. We also welcomed our Chair-elect, Inna Sokolova. Inna will take over the reins as DCPB Chair at end of the 2016 meeting in Portland when my term ends. The Portland meeting also marks the end of the term of our Secretary, Deborah Lutterschmidt. Therefore, we will be electing a new Secretary this spring. A nominating committee solicited nominations and received the gracious acceptance of nomination from Marshall McCue and Robin Warne. Ballots for the Secretary position will be sent later this spring, so please vote.

I continue to look forward to serving DCPB, so please contact me with your ideas, suggestions, and any questions (Chair.DCPB@sicb.org).



Message from the DCPB Chair-Elect

Inna Sokolova, Chair.DCPB@sicb.org

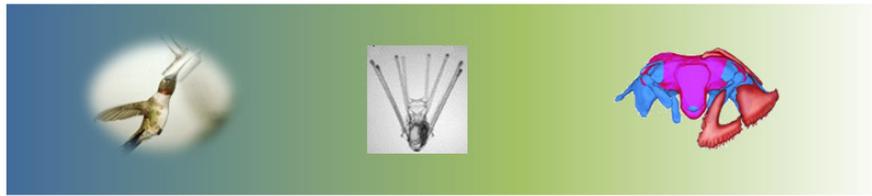


Inna Sokolova, University of North Carolina at Charlotte

I would like to thank the DCPB members for their support in electing me as Chair-Elect of the DCPB. I am greatly honored by this vote of confidence and am looking forward to serving the DCPB as it continues to support and foster exciting, diverse and excellent science, education and networking opportunities for researchers of all ranks and career stages interested in comparative physiology and biochemistry. I greatly enjoyed the SICB meeting in West Palm Beach with its characteristic atmosphere of collegiality, openness and scientific excellence, which I consider a trademark of the SICB. I also enjoyed getting to learn some of the inner workings of the division leadership by participating in the Executive Committee meetings. I am looking forward to working with our Chair, Stephen Secor, and the Executive Committee in further strengthening the division and continuing its tradition of scientific excellence and inclusiveness. As we are looking forward to the 2016 SICB meeting in Portland, I would like to invite the DCPB members to share their ideas about improving the meeting experience, fostering the participation of young scientists, and increasing the diversity of DCPB membership with me or any other member of the Executive Committee. I am looking forward to hearing from you and to seeing you in Portland!

The DCPB's Robert Boutilier Best Student Presentation Awards

This year the DCPB student presentation awards were named in honor of Dr. Robert Boutilier (1953-2003). Born in Halifax, Nova Scotia, Canada, Bob received a B.Sc. with First Class Honours in 1976 and an M.Sc. in 1978 from Acadia University working with Dr. Dan Toews. He received his Ph.D. in 1981 from the University of East Anglia, England, under the direction of Dr. Graham Shelton. Bob was a post-doctoral fellow at the Max Planck Institute in Germany and an NSERC University Research Fellow at both the University of British Columbia and Dalhousie University. He became an Assistant Professor of Biology at Dalhousie University, and later served as the Chairman of Biology Department. In 1992 Bob became a Lecturer in Zoology at the University of Cambridge, where he also served as the co-editor of *The Journal of Experimental Biology*. As a comparative physiologist, Bob's research focused on understanding the relationship between organisms and their environments, from the level of behavior to the level of tissues and molecules. Bob was particularly interested in the mechanisms and significance of metabolic depression in animals. For his work, Bob received the President's Medal in Animal Biology from the Society of Experimental Biology in 1990, a D.Sc., honoris causa, from Acadia University in 1996, and became a Fellow of the Royal Society of Canada in 2000. Bob was also awarded the Fry Medal of the Canadian Society of Zoologists in 2002. Sadly, the University of Cambridge announced Bob's promotion to Professor just a few days after his death. Bob's mentor and close friend for more than 30 years, Dan Toews, aptly summarized Bob's contributions to science and those lucky enough to have known him, stating "Bob was without question a consummate scientist, friend and teacher. He had a wonderful gift of telling stories, of making music, and of making people laugh." Additional information as well as the above quotation can be found in tributes published in *The Journal of Experimental Biology* ([click here for link to article by David Randall](#) and [here for link to article by Dan Toews](#)).



Message from the DCPB Student Presentation Judging Coordinator

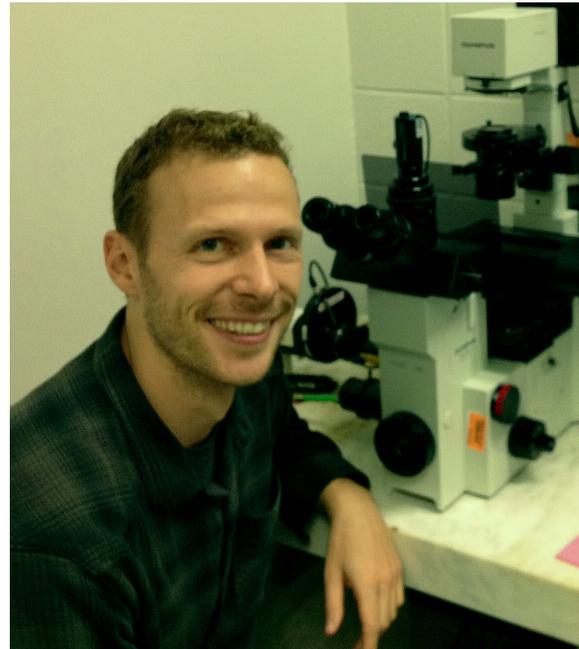
Ana Jimenez



Ana Jimenez, Loyola Marymount University

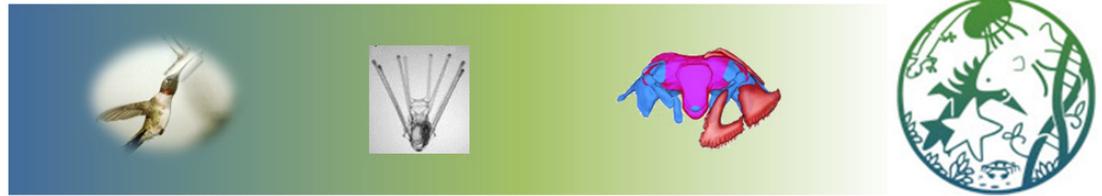
The DCPB had 73 poster and oral student presentations entered into the Best Student Presentation competition. Thirty judges volunteered to assess student presentations, and each presentation had up to 3 judges to evaluate it. We were fortunate to have many presentations that judges deemed worthy of an award. Ultimately, Tim Crombie of the University of Florida received the best student oral presentation award, and Lisa Treidel of Illinois State University received the best student poster award. Congratulations to you both! Great job!

The Robert Boutilier Award for Best Oral Presentation



Tim Crombie, University of Florida

The winner of the DCPB's Robert Boutilier Award for best oral presentation is Tim Crombie. Tim received his B.A. in Biology from Arizona State University in 2004, and is currently completing a Ph.D. degree at the University of Florida under Dr. David Julian. Together they are studying how organisms are affected by, and respond to, environmental stressors via changes in gene expression. At the 2015 SICB conference, Tim presented work showing that heat and juglone-induced oxidative stress synergize to reduce survival in the nematode *Caenorhabditis elegans*. Furthermore, he showed that nematodes exposed to both stressors simultaneously up-regulate the expression of heat shock response genes, but do not express the usual oxidative stress response genes. This inhibition of oxidative stress response gene expression may make the nematode more susceptible to the combination of heat and oxidative stress by reducing their capacity to avoid and repair oxidative damage.



The Robert Boutilier Award for Best Poster Presentation



Lisa Treidel, Illinois State University

The winner of the DCPB's Robert Boutilier Award for best poster presentation is Lisa Treidel. Lisa received her B.A. in Biology from Bucknell University in 2012. She is currently finishing her M.S. degree at Illinois State University with Dr. Rachel Bowden. Lisa is investigating the role of the developmental environment on oxidative stress in red-eared slider turtle hatchlings. At SICB 2015, Lisa presented results demonstrating that incubation temperature fluctuations influence total antioxidant capacity levels of hatchlings. Effects of incubation temperature fluctuations may have important consequences for hatchling overwintering survival and fitness.

Call for Nominations from the Chair of the Bartholomew Award Committee

Sheila Patek, Duke University



Nominations for this year's Bartholomew Award are due 24 August 2015.

Each year the Division of Comparative Physiology and Biochemistry recognizes a young investigator for distinguished contributions to comparative physiology and biochemistry or to

related fields of functional and integrative biology. The award offers the awardee a fantastic opportunity to communicate this research via a large lecture at this year's SICB conference. We encourage nominations of individuals from under-represented groups in science, including women.

Instructions for Bartholomew Award Nominations:

Eligible candidates are those who have completed their doctorate within the past seven years and who are members of SICB. Candidates for this award may apply themselves or they may be nominated; all candidates will be evaluated equally. Applicants should submit a short description of their work, selected reprints, and curriculum vitae to Dr. Sheila Patek, the Chair of the Award Committee. Three letters of recommendation should be solicited from colleagues who know of the nominee's work. Nominators must arrange for these same materials to be sent to Dr. Patek, except with only two additional letters of recommendation. The person chosen as the recipient of this award will be invited to present a special address at the 2016 SICB Meeting in Portland, Oregon. In addition to a cash prize, the recipient will be reimbursed for expenses incurred to attend the meeting. Please send applications/nominations for this award to Dr. Patek at Sheila.Patek@duke.edu. **The deadline for nominations is 24 August 2015.**

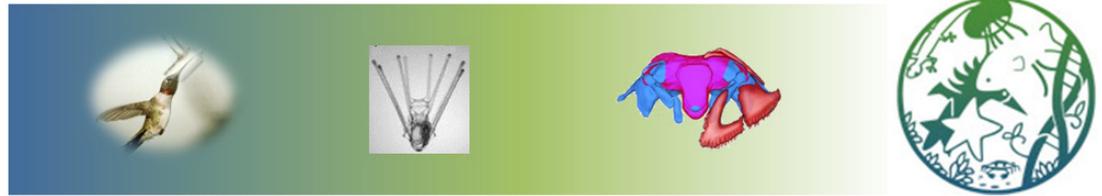
Message from the DCPB Program Officer

Jason Podrabsky, DPO.DCPB@sicb.org

Jason Podrabsky, Portland State University



This is my first spring newsletter as program officer for DCPB. I want to start by thanking Jonathon Stillman for his service for the past few years. He did a great job and supported an impressive variety of symposia. I hope that I can live up to the standards that he set!



West Palm Beach 2015

The West Palm Beach meeting was a big success, so thank you to everyone who participated in the meeting! Our division co-sponsored a number of great symposia with such diverse titles as: *Towards a General Framework for Predicting Animal Movement Speeds in Nature*, *Physiology in Changing Landscapes: An Integrative Perspective for Conservation Biology*, *Neurohormones, Brain and Behavior: a Comparative Approach to Exploring Rapid Neuroendocrine Function*, and *Chemicals that Organize Ecology: Towards a Greater Integration of Chemoreception, Neuroscience, Organismal Biology, and Chemical Ecology*. This year the recipient of the Bartholomew Award was Jodie Rummer of James Cook University. Her lecture entitled "Lessons from the most successful vertebrates: Coping with stress and maintaining performance in a changing world" was an impressive tour-de-force of integrative biology. It was an inspiring lecture that showcased the central importance of organismal physiology. If you want to nominate an early PhD integrative biologist for the Bartholomew award, visit the SICB webpage at: <http://www.sicb.org/membership/awards.php3#bart>.

Portland 2016

The 2016 SICB meeting is in my hometown of Portland, Oregon! This promises to be a great meeting with lots of good microbrews, great restaurants, and of course Voodoo Doughnuts! We should have a great list of things for the notes from the underground section, and if we can't put together a good pub crawl in Portland then something has really gone wrong! Stay tuned for more info in the fall newsletter. The division is sponsoring or co-sponsoring a number of great symposia for the meeting including:

Life on the edge: the biology of organisms inhabiting extreme environments. Organizer: Annie Lindgren

Extraocular, nonvisual, and simple photoreceptors. Organizers: Thomas Cronin and Sonke Johnsen

Integrative and comparative biology of venom. Organizers: Marymegan Daly and Lisle Gibbs

Tapping the Power of Crustacean Transcripts to Address Grand Challenges in Comparative Biology. Organizers: Donald Mykles, Karen Burnett, David Durica, and Jonathon Stillman

Beyond the mean: Biological impacts of changing patterns of temperature variation. Organizers: Michael Dillon, Michael Sears, and Art Woods

Please contact the organizers if you would like to participate in the complementary sessions associated with these symposia.

New Orleans - 2017

I know it seems early, but now is the time to be thinking about proposing to organize a symposium for the 2017 meeting in New Orleans. Symposia that look to define emerging concepts or major advances in a field, are integrative across disciplines, and include a diversity of speakers are more likely to gain broad support within SICB and with funding agencies. If you would like to propose a symposium the deadline is August 24, 2015. However, it is never too early to fill out the application at: <http://www.sicb.org/meetings/2017/call-symp.php>. I would be happy to brainstorm or discuss ideas if you want to drop me a line, or you can also contact the SICB Program Officer, Dr. Sherry Tamone (ProgramOfficer@sicb.org). I hope that everyone is having a productive 2015 and I look forward to hearing your great ideas for symposia for the 2017 meeting.

Other meetings of interest

Second International Conference on Oxidative Stress in Aquatic Ecosystems

November 11-14, 2015, La Paz, Baja California Sur

<http://intranet.cibnor.mx/iplant1.php?pagID=anuncios/estres2015/index>

NSF-funded travel grant program for graduate students, postdoctoral associates, and early-career scientists from the USA: <http://www.ewu.edu/oxidative-stress-conference>

Society for Experimental Biology Prague 2015

June 30–July 3, 2015, Prague, Czech Republic

<http://www.sebiology.org/meetings/Prague/Prague2015.html>

IV International Course on Comparative Physiology of Respiration

July 13-23, 2015, Sao Paulo, Brazil

Information: Luciane Gargaglioni, Ph.D. Email: lucihel@fcav.unesp.br

The 9th International Congress of Comparative Physiology and Biochemistry: From Molecules to Macrophysiology

August 23-28, 2015, Kraków, Poland

<http://www.iccpb2015.confer.uj.edu.pl/>



Message from the DCPB Student/ Postdoctoral Affairs Committee Representative

Natalie Pitts, pittsn@rams.colostate.edu



Natalie Pitts, Colorado State University

This past year SPDAC launched a Facebook and Twitter account (see links below), but we received very few "likes" and "followers." By creating these accounts we are hoping to develop a better sense of community between graduate students and

post-docs. These sites were also developed with the intention of providing students a place where their voice can be heard and they can provide opinions about SPDAC workshop topics, socials, and ways to improve student experiences at SICB. Start shaping your SICB experience in Portland now by letting your voice be heard!

At the meeting in West Palm Beach, more than \$75,000 was provided by SICB for student support, including support to attend the meeting, the Grants in Aid of Research (GIAR), and the Fellowship of Graduate Student Travel (FGST). Plan ahead to apply for these resources in the coming year (see <http://www.sicb.org/students/awards.php3>).

This year the "how to write fundable grants" workshop received numerous positive reviews. Thanks to the support of several professors and NSF program officers we were able to run the workshop in small groups. This led to targeted discussions about how to apply for grants as an undergraduate, graduate, and post-doctoral fellow. Group discussions were fueled by professors sharing their experiences and NSF program officers answering student's questions. If this workshop got you interested in writing a grant but you do not know where to start, check out the list of grants and fellowships maintained by SPDAC (see links below).

We were very pleased with the level of participation and feedback we received about how this year's workshop was structured, and therefore we intend to maintain this organization for the 2016 Portland workshop. The topic of next year's workshop will be "how to transition between different stages of your academic career." We are hoping to recruit not only professors but also post-docs and graduate students to share their experiences.

Facebook page: <https://www.facebook.com/sicbspdac>

Twitter account: @SICB_SPDAC

SICB Student-Postdoc Awards & Grants: www.sicb.org/students/

External Grants and Fellowships: www.sicb.org/grants/externalgrants.php

Message from the DCPB Secretary

Deborah Lutterschmidt, Secretary.DCPB@sicb.org



Deborah Lutterschmidt, Portland State University

Thanks to everyone who helped make the 2015 West Palm Beach meeting a huge success. Please join me in thanking Ana Jimenez for her dedicated efforts in managing and organizing the Best Student Presentation Awards com-

petition for DCPB. There were more than 70 student entries in the competition, and it is no small feat to organize the judging of these presentations. I would also like to sincerely thank the many DCPB members who volunteered to serve as judges for the competition – we really appreciate your time and dedication to the DCPB.

I have really enjoyed my role as Divisional Secretary thus far, but my term will end with the 2016 meeting in Portland, Oregon (a bit of a homecoming, I suppose). Elections for Divisional Secretary will take place later this spring. The new Secretary will serve a two-year



term beginning at the conclusion of the 2016 Portland meeting. We have two excellent candidates for the position. Ballots will be issued in May, so keep an eye out for the SICB Election email and please vote! Only about 10% of the eligible membership voted in last year's elections, a much lower percentage than in previous years. SICB and the DCPB would love to see that number increase. On behalf of the DCPB, I would like to sincerely thank these outstanding candidates for their willingness to serve our division.

If there is anything you would like to discuss or some news you would like announced to the DCPB membership, please don't hesitate to contact me at Secretary.DCPB@sicb.org. I would also like to ask for your assistance in building the Division's Researchers Database. If you would like to see your research highlighted on the SICB website, please send me a research picture, title for the picture/research, and a brief (1-3 sentences) description of your research via email. Examples can be found [here](#).

Thanks to all of our members for your continued support of the DCPB – I look forward to seeing you all again in Portland!

[Minutes of the 2015 DCPB Business Meeting in West Palm Beach, FL.](#)

Candidates for DCPB Secretary

Marshall McCue

Current Position: Associate Professor, Department of Biological Sciences, St. Mary's University, San Antonio, TX.

Education: B.S. summa cum laude, Zoology, University of Florida (2001); M.S., Biology, University of California Irvine (2003); Ph.D., Biology, University of Arkansas (2008).

Professional Experience: Post-doctoral Researcher, Blaustein Institutes for Desert Research, Israel (2008-2010); Assistant Professor, Department of Biological Sciences, St.



Mary's University (2010-2014); Associate Professor, Department of Biological Sciences, St. Mary's University (2014-present).

SICB Activities: Division of Comparative Physiology and Biochemistry, active member since 2001; Judge for Best Student Poster competitions; Session Chair; Bartholomew Award, two-time nominee; Symposium submission proposals for the 2013 and 2014 annual meetings; Peer reviewer for manuscripts for Integrative and Comparative Biology; authored or co-authored 15 posters/talks with students and collaborators.

Other Memberships: American Physiological Society; Comparative Nutrition Society; International Society for Respiratory Science; Society for Experimental Biology.

Research Interests: My interests include the research of the physiological responses that animals employ to survive, and often thrive, in the face of the challenges posed by their respective environments. In the past few years my lab has studied environmental stressors including fasting/starvation, hypoxia, hypercapnia, and extreme temperatures, as well as physiological responses to states of elevated metabolic demands caused by digestion and exercise. My commitment to the August Krogh Principle has led me to study a variety of animals including reptiles, rodents, birds, humans, insects, bats, fishes, and amphibians (in no particular order). My research makes extensive use of respirometry to measure metabolic expenditure and my laboratory is continually developing new approaches to use stable isotopes to track nutrient allocation and substrate oxidation in animals. Recent collaborative activities have allowed me to integrate other experimental approaches including ecoimmunology, metabolomics, experimental evolution, and gene sequencing to investigate physiological responses to stress.

Goals Statement: Over the past 15 years, I have personally viewed the DCPB through the eyes of an undergraduate student, graduate student, postdoctoral researcher, and faculty member. The mission of the DCPB has always paralleled my own research interests, and now I look forward to serving the DCPB. Even though I have not previously held a position as a divisional officer, I have attended the annual DCPB Business meetings over the past four years. As an officer, I would encourage other DCPB members to attend these meetings to learn more about their home Division. As secretary of the DCPB, I will faithfully



and accurately record the minutes of annual business meetings and work with DCPB members to create our Divisional newsletters. A unique focus of my tenure as DCPB Secretary will be to dramatically increase the size of our Researchers Database on the SICB website. This website represents a critical portal for the press and lay public, as well as current SICB members, and therefore should highlight the important scientific contributions made by DCPB members. I will achieve this goal by personally reaching out to long-term members of our Division, and then encouraging younger faculty, postdocs, and graduate student members to follow their lead.

Robin Warne



Current Position: Assistant Professor, Department of Zoology, Southern Illinois University, Carbondale, IL.

Education: B.A., Biology, University of California, Santa Cruz (1996); Ph.D., Biology, University of New Mexico (2008); Postdoc, Department of Biology, Vassar College, (2009-2011).

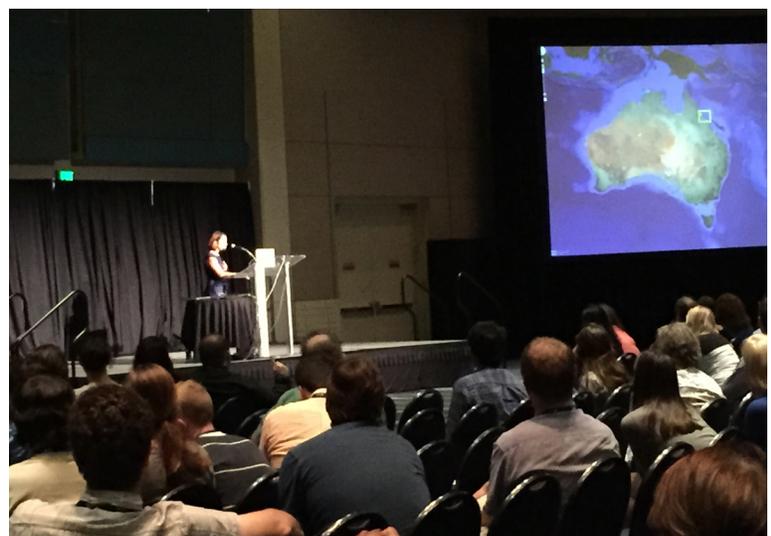
Professional Experience: Lecturer in Ecology and Evolution, Department of Biology, University of New Mexico (2009); Adjunct Assistant Professor, Department of Biology, Vassar College (2009-2011); Assistant Professor, Department of Zoology, Southern Illinois University (2011-present).

SICB Activities: Member since 2005; Judge for Best Student Presentations (DCPB and DEE); 16 total oral and poster presentations at SICB (includes mentored students); developed DCPB sponsored symposium in collaboration with Dan Hahn (U. Florida) for 2014 SICB meeting in Austin titled "The micro and macro of nutrient effects in animal physiology and ecology."

Other Memberships: American Physiological Society; Ecological Society of America; American Society of Ichthyologists and Herpetologists; Sigma Xi; Global Ranavirus Consortium (GRC).

Research Interests: Research in my laboratory explores how vertebrates physiologically balance resource allocation to life history processes with environmental stressors and emerging disease. We integrate methods from stable isotope physiological ecology, endocrinology, molecular methods for gene expression, and ecoimmunological assays in both field- and lab-based studies focused on amphibians and reptiles. Most recently, we have been testing how environmental stressors affect the transmission and risk of epizootic outbreaks of Ranaviruses, an emerging disease of ectotherms.

Goals Statement: I am honored to be nominated as a candidate to serve as the DCPB Secretary. I "grew up" within SICB and DCPB as a grad student, postdoc, and now mentor to a new generation of society members; I greatly value the wealth of knowledge, experiences, and collegial friendships I have gained by regularly attending our meetings. Given these experiences, I am excited by the prospect of giving back to this great society, division, and community of scientists. If elected as Secretary, I will work to encourage broad engagement among the DCPB and SICB membership as a whole. I will also endeavor to promote student, postdoc, and interdisciplinary involvement in the DCPB in order to support and encourage a thriving, interactive community within SICB, both now and into the future.



Jodie Rummer presents her research during the Bartholomew Award special lecture. The DCPB acknowledges a student supported by the SICB Charlotte Mangum Student Support Program for providing the photos of the Bartholomew Award Lecture.