



Division of Ecology and Evolution

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DEE Officers & Representatives

Art Woods
Chair 2011-2013

Michele Nishiguchi
Past Chair 2011-2013

Aaron Krochmal
Secretary 2011-2013

Michael W. Sears
Program Officer 2009-2012

Sarah Kosting Berke
Student/Postdoc Representative
2008-2011

Message from the Chair

Art Woods

Greetings from the Division of Ecology and Evolution!

January's meeting in Salt Lake City was another successful one with strong divisional attendance, an excellent slate of talks and symposia, and good progress at divisional and society-wide meetings. In Salt Lake City, the DEE cosponsored five symposia:

1. Speciation in Marine Organisms (organized by M.P. Miglietta, F. Santini and A. Faucci)
2. Neuroecology: Neural Determinants of Ecological Processes from Individuals to Ecosystems, organized by C. Derby and R. Zimmer.
3. Bridging the Gap Between Ecoimmunology and Disease Ecology, organized by S. French.
4. A synthetic approach to the response of organisms to climate change: The role of thermal adaptation, organized by M. Sears.
5. Environment, Energetics and Fitness: a Symposium Honoring Donald W. Thomas, organized by M. Wojciechowski.

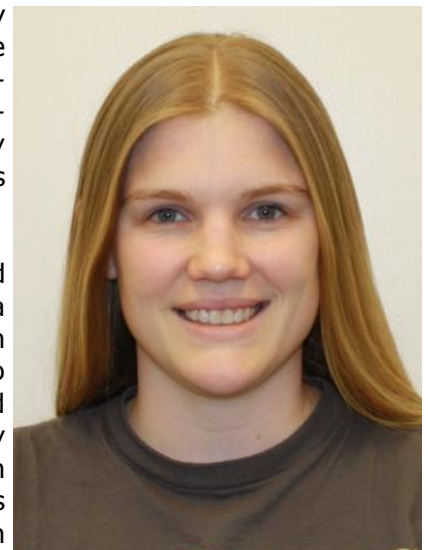
Look for symposium papers in forthcoming issues of [ICB](#).

Best Student Presentations

It's our pleasure to announce the Best Student Talk and Best Student Poster from the 2011 meeting

BEST TALK: Brittany Sears, University of South Florida, bsears@mail.usf.edu "The contribution of anti-parasite behavior to resistance and tolerance of trematode infections in anuran tadpoles" co-authored by J.R. Rohr, J.R. and L.B. Martin. Brittany's abstract can be found [here](#).

Brittany is co-advised by Lynn Martin and Jason Rohr at the University of South Florida in Tampa, FL. Her research interests lie in cellular and organismal host responses to parasites. Brittany is particularly interested in how hosts trade-off resistance (the ability to reduce the intensity of an infection) with tolerance (the ability to maintain fitness during a parasitic infection) using anuran tadpole-trematode parasite systems. She is also broadly interested in the immunology of inflammation in wild animals, which, she feels, likely differ substantially from what we know about inflammation in laboratory situa-



Brittany Sears



tions.

BEST POSTER: Amy Skibiell Auburn University, skibiam@auburn.edu "Temporal and inter-individual variation in milk composition in a free-ranging, hibernating rodent" co-authored by W.R. Hood. Amy's abstract can be found [here](#)



Amy Skibiell

Amy is a graduate student in Dr. Wendy Hood's lab at Auburn University. Her research interests focus on how physiological mechanisms of maternal investment during lactation are involved in tradeoffs in life history components and on the ultimate influences of investment on maternal and offspring fitness.

Brittany and Amy were the top presenters from out of a highly competitive pool of excellent competitors. Congratulations to them both!

The division gratefully acknowledges the support of a dedicated pool of volunteer judges who made this important competition possible: Michele K. Nishiguchi, Anuschka Faucci, Erin Lehmer, Dana Hawley, Noga Kronfeld-Schor, Andrew Mahon, Luiz Rocha, Aaren Freeman, Elizabeth Dahlhoff, Audrey Aronowsky, Ricky-John Spencer, Lauren Chan, Joana Campos, Daniel Speiser, Maria de Boef Miara, Rebecca Rundell, Christopher Bird, Russell Easy, Shannon Wells, Sarah Berke, Pawel Brzek, Robin Warne, Sharlene Santana, Dawn O'Neal, John Vanden Brooks, Subhash Rajpurohit, Jon Davis, Diane Adams, Brent Sinclair, Brittan Wilson, Wendy Reed, Louise Rollins-Smith, Benjamin Miner, John Hranitz, David Ginsburg, Donald Miles, Craig Frank, Scott McWilliams, Robert Podolsky, Allison Welch, Simon Lailvaux, Peter Zani, Michael O'Connor, Roi Holzman, C. Sarah Cohen, Ryan Earley, Christine Miller, Caldwell Hahn, Ajna Rivera, Jennifer Sorensen-Forbey, Francois

Michonneau, and Andrew Flies.

Considering the society's focus on furthering our student members, supporting this award is one of the most important things we do as a division, and we thus encourage other members to help support our student members by signing up to judge the 2012 competition in Charleston.

Message from the Program Officer

Mike Sears

I am excited to announce a call for symposium proposals for the 2013 Annual Meeting to be held in San Francisco, CA. Symposia sponsored by DEE are our primary means to create a meeting presence, highlighting the innovative work of members within our division. Over the past two years, DEE has been able to co-sponsor an increasing number of symposia. Although our funds have helped to support some fantastic speakers at recent meetings, we would really like to focus more of our budget toward funding symposia primarily sponsored by DEE. As such, we plan to use at least half of our symposium budget this year to fund symposia with DEE as the primary sponsor.

If you are interested in submitting a proposal, I encourage you to submit proposals sooner than later. Although the deadline for proposals to the society is not until mid August, I would like to receive preliminary proposals by June 1, if possible, so that I can provide feedback to ensure that your symposium is supported. As a division, we would like to see proposals that address hot areas of research in ecology or evolution. Proposals that highlight study organisms or that are in honor of past members will be given less priority than those that address larger conceptual issues in the field. We would also encourage submissions from junior members and members from underrepresented groups in order to broaden participation amongst our member-



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ship. Remember, the success of Integrative and Comparative Biology is solely determined by the quality of our symposia. If you have any questions, please do not hesitate to contact me (msears@brynmawr.edu).

DEE Researchers in Focus

Timothy C. Roth Dr. Timothy Roth is a broadly-trained, integrative biologist with interests in neurobiology, physiology, and behavior, and the ecological processes leading to evolutionary adaptations in these areas. His research broadly seeks to understand the processes by which natural selection influences the use of space by animals. Using avian models, Tim addresses two major lines of research: 1) understanding the neural mechanisms of behavior, the process of making decisions, and the strategies of movement in space and 2) understanding how these strategies of movement influence larger processes, such as predator/prey dynamics, and consequently community composition.

Individuals continually make decisions about spatial use--from fine-scale microhabitat selection to large-scale seasonal shifts among biomes, for example during migration. Tim seeks to understand the neurological mechanisms underlying these decisions and the consequences of those decisions for larger-scale processes. During his graduate work, he studied the physiological and ecological factors affecting the movements of snakes (with Brian Greene at Missouri State University) and raptors (with Steven Lima at Indiana State University). More recently, his research has focused on the environmental

factors that influence the neurological mechanisms of spatial memory (with Vladimir Pravosudov at the University of Nevada, Reno). In the future, Tim plans to apply neurological and molecular techniques to study the behavioral mechanisms that drive movement at the landscape level. The long-term goals of this research are to understand 1) the adaptive relevance of brain plasticity for spatial use outside the "box" (i.e., the lab), 2) the physiological and neurological mechanisms of risk perception and decision-making behaviors, and 3) the ecological consequences of these behaviors.

Katie Wagner Katie Wagner is a Ph.D. student in the of Department Ecology and Evolutionary Biology at Cornell University Her research interests lie in speciation and diversification, particularly in systems with high species diversity. This attraction to high-diversity systems as models for studying diversification

processes brought her to Lake Tanganyika, the oldest of the East African rift lakes and home to a huge diversity of endemic taxa, as the location for much of her dissertation work. There she has worked both on cichlid fishes and on the lake's endemic gastropod fauna. She is interested in understanding the interactions between habitat and species' ecology on population genetic structure, and the impact of these combined influences on speciation processes. Among cichlids, she has shown that even closely related and sympatric taxa can exhibit dramatic differences in scales of gene flow at small geographic scales. More recently, her research has taken a turn towards broader-scale macroevolutionary patterns, with pro-





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jects examining patterns of diversity, and the factors influencing diversification, in cichlid fishes across the African continent. This work parallels the work she has done at population genetic scales in that it seeks to understand the combined effects of environment and lineage-specific traits on the origins and accumulation of species diversity.

A reminder: The DEE webpage features the research of division members (<http://www.sicb.org/divisions/dee.php3>). Help us promote our division and the work of our members by contributing material to the site. To add your research profile to the DEE page, or, to update an existing file, send text files (.doc or .txt), images (.tif, .jpg, .png, or .gif), and movies (.avi or .mpeg) to Aaron Krochmal (akrochmal2@washcoll.edu).

Minutes of the Division of Ecology and Evolution Business Meeting (January 4, 2011)

The meeting began at 17:18, with approximately 15 attendees, including Michele Nishiguchi (Chair), Art Woods (Chair-elect), Michael Sears (Program Officer), and Michael Finkler (Secretary).

We began the meeting with introductions of the divisional officers.

The chair made several announcements. She called for symposia for the meeting in San Francisco in 2013, specifically symposia that address grand challenges and integrative ideas. She also encouraged symposia with broad speaker lists, with a blend of both junior and senior researchers from the U.S. and abroad. She also called for candidates for Program Officer-elect in the elections to be held later this year. She also noted that membership rates will be increased to provide a \$5 per member fund for

the divisions which will be allocated based on proportional affiliation with the divisions. As DEE is one of the larger divisions, the division will likely receive a sizeable proportion of this revenue. The chair urged members of DEE to submit manuscripts addressing grand challenges in Ecology and Evolution. Finally, the chair noted that Trish Moore (the division's AAAS representative) has called for nominations for AAAS fellows.

The chair also discussed her activities with the SICB Broadening Participation committee, which works to increase underrepresented minorities in the society. She noted that the committee provided funding for ~10 postdocs and one faculty member to attend this year's meeting.

The secretary commented on the progress of the Division's Best Student Presentation program. The number of presentations this year (57 total) was down from the previous year, likely reflecting the decrease in overall attendance to the meeting this year. The secretary expressed his appreciation for the 52 division members who agreed to serve as judges and the society webmaster for his efforts in streamlining the online judging system.

The program officer noted that DEE partly sponsored eight symposia this year. However DEE was not the primary division for any of them, and urged the membership for symposia ideas that originate within DEE. He also solicited feedback on the extension of the meeting into the afternoon of the last day of the conference.

The meeting adjourned at 18:15.



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Proposed DEE Bylaws Changes

A minor change is proposed to the DEE bylaws to make them consistent with the SICB bylaws. This will appear on a ballot later in the spring.

Article X. Best Student Presentation Paper-Awards

Candidates for Elections It's election time!

The DEE is currently holding elections for the positions of Chair and Program Officer.

Candidates for Chair

Michael J. Angilletta Jr.



Current Position: Associate Professor, School of Life Sciences, Arizona State University

Educational Background: B.S. in Biology from The College of New Jersey, 1992; Ph.D. in Ecology and Evolution from the University of Pennsylvania, 1998

Professional Experience: 1999-2000, Lecturer of Biology, University of Pennsylvania; 2000-2006, Assistant

Professor of Biology, Indiana State University; 2006-2010, Associate Professor of Biology, Indiana State University; 2007, Visiting Scholar, University of Queensland, 2010-present, Associate Professor of Life Sciences, Arizona State University

Awards and Honors (selected): Prom-

ising Scholar Award, Indiana State University, 2006; Theodore Dreiser Distinguished Research & Creativity Award, 2009; Marsh Book-of-the-Year Award, British Ecological Society, 2009; Faculty of 1000 in Biology, 2009-present

SICB Activities: Member since 1998; Co-organizer of two symposia (2004, 2011)

Other Societal Memberships: American Society of Naturalists

Research Interests: My lab integrates theoretical and empirical approaches to understand the evolution of behavior and physiology in changing environments. In particular, we are developing a quantitative theory to predict strategies for coping with thermal change, such as thermoregulation, thermotolerance, and acclimation. We are applying this theory not only to understand the origin and maintenance of phenotypic diversity, but also to predict the geographic limits to ectothermic species and the biological consequences of climate change.

Statement of Goals: Since I was a graduate student, I have been coming to the annual meetings of SICB, mainly because I have not experienced another society as diverse and engaging. During this time, DEE has been a division that many choose as a secondary affiliation, but few choose as a primary affiliation. As a member affiliated solely with DEE, I would like to enhance the impact of our division by 1) broadening the ecological and evolutionary themes covered by symposia, 2) establishing a DEE-sponsored award for research, 3) recruiting ecologists and evolutionary biologists who study under-represented taxa, such as plants and microbes, 4) rewarding participants in our meetings and events with free food, and 5) making it cool to switch your primary affiliation to DEE. Okay, this last goal is just campaign rhetoric, but four out of five would be a respectable achievement.



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Denise Dearing

Current Position: 2007-present, Professor, University of Utah



Education: B.S. Eastern Connecticut State University, 1985; M.S. University of Vermont, 1988; 1990 OTS winter course; Ph.D. University of Utah, 1995

Professional Experience: 1995 Fulbright Postdoctoral Fellow, CSIRO, Canberra Australia; 1996-1998 NSF Postdoctoral Fellow, University of Wisconsin; 1998-2003 Assistant Professor, University of Utah, 2003-2007 Associate Professor, University of Utah, 2007-present Professor, University of Utah

SICB Activities: Member since 1998; Member of the Broadening Participation Committee (2010-present); Symposium Co-organizer for Bridging the Gap Between Eco-Immunology and Disease Ecology, Salt Lake City, 2011.

Other memberships: Ecological Society of America, American Society of Mammalogists

Research Interests: There are two avenues of research in my lab that focus on the interactions of small vertebrates with either their food or pathogens. I have had a perennial interest in the factors that govern diet selection in herbivorous vertebrates. Using a combination of approaches, my research attempts to unravel the complexities of these interactions to uncover patterns of herbivore foraging behavior. To this end, I am pursuing several behavioral, ecological, genomic, and physiological questions. How does plant chemistry affect foraging behavior? What physiological adaptations do her-

bivores possess to deal with plant toxins? Are specialist herbivores physiologically distinct from generalists? Will climate change alter diet selection and toxicity in herbivores? The other area of research in my lab is centered on understanding the factors governing pathogen dynamics in small mammals. We have been conducting a long-term study in central Utah to understand the interplay of disturbance, climate and host related factors (immunity, behavior) in driving the prevalence of Sin Nombre virus (a hantavirus) in deer mice. This work incorporates both ecological and immunological techniques.

Goals Statement: I was a latecomer to the SICB, joining the society as an Assistant Professor. As a graduate student I was active in the Ecological Society of America but was under the impression that the SICB was for morphologists, not ecologists. At my first SICB meeting, I was stunned by the diversity of ecological and evolutionary research. As Chair of DEE I would work to recruit other ecologists and evolutionary biologists to the society, particularly junior scientists that may not be aware of the scope of evolutionary biology and ecology presented at SICB meetings. One mechanism to achieve this goal is DEE sponsorship of symposia to attract and promote interactions between leaders and students in different areas of ecology and evolution. I would encourage symposium organizers to include junior scientists (graduate students and postdocs) in the design and execution of symposia. I support the current Chair's initiative to enhance attendance and interactions at DEE socials. The SICB meeting is well known for fabulous graduate student support. I would like to see this extended to postdoctoral fellows, who typically have fewer funding options for meeting support despite being at a critical stage in their career for networking.



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Candidates for Program Officer

Elizabeth P. Dahlhoff

Current Position: Associate Professor of Biology, Santa Clara University, Santa Clara, California USA



Education: B.A. (Chemistry and Biology), University of California, Santa Cruz; Ph.D. (Marine Biology), Scripps Institution of Oceanography, University of California, San Diego.

Professional Experience: Postdoctoral Fellow, Oregon State University (1992 - 1995); Assistant Professor, Sonoma State University (1995 - 1997); Assistant Professor, Santa Clara University (1997 - 2003); Associate Professor, Santa Clara University (2003- present).

SICB Activities: Member since 1987 (affiliated with DCPB). Affiliated with DEE since 1996. Judged best student papers and posters numerous times in past 15 years.

Other Societal Memberships: Society for the Study of Evolution; American Physiological Society.

Research Interests: I am a broadly trained biologist who is keenly interested in understanding mechanisms by which animals adapt and respond to environmental change, both over time and along geographic gradients. I am especially interested in integrating the effects of environmental change across organizational levels, from biochemical and physiological processes to ecological interactions and evolutionary adaptation. Recently, I have become intensely interested in understanding how human activity, and especially climate change, is af-

fecting what are appear to be "pristine" natural systems.

Statement of Goals: I consider this society my intellectual home, and it would be an honor to serve in a leadership role. One of the greatest strengths of SICB is the diversity of modern perspectives and experimental approaches we embrace (e.g. genomics, metabolic synthesis, climate modeling, and the like), while keeping our sites on fundamental biological problems (e.g. "Why does species X live here, and not there?"). As program officer, I would encourage symposia that exploit a synthetic approach to investigations of ecology and evolution of organisms. In addition, as a long-time member of two divisions, I appreciate the connectivity we share with other sub-disciplines within our society, and will work to develop symposia and other programs to deepen these natural connections. Finally, I appreciate that we are a group of intellectuals who value and support the contribution of scientists at all points in their careers. As a faculty member at a "RUI" university, I am especially sensitive to the needs of early career scientists, who are often intimidated by presenting their work at a national meeting. As program officer, I would develop more participation by undergraduates, in part by initiating an award for best undergraduate paper and poster within the division. I would also continue to facilitate and support the excellent programs already in place for young scientists at the graduate and post-doctoral level.

Michael Sears

Current Position: 2009-present, Assistant Professor, Department of Biology, Bryn Mawr College

Educational Background: B.S. (Biology) Rhodes College; 1993; Ph.D.





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(Biology; Ecology and Evolutionary Biology)
University of Pennsylvania; 2001

Professional Experience: 2009-present, Assistant Professor, Department of Biology and Program in Environmental Studies, Bryn Mawr College; 2006-2009 Assistant Professor, Department of Zoology, Southern Illinois University; Postdoctoral Fellow with Jack Hayes at the University of Nevada, Reno, 2004-2006; National Science Foundation Postdoctoral Fellow in Biological Informatics, 2002-2004.

SICB Activities: member since 1998; DEE Program officer from 2008-present

Other Societal Memberships: Ecological Society of America

Research Interests: I am a broadly trained biologist with interests in quantitative aspects of physiological and behavioral ecology, evolutionary ecology, and population biology. My focus within each of these areas is generally focused on the responses of organisms to changing climates. I am especially interested in confronting models with real data to advance our conceptual understanding of issues in integrative biology. I have largely worked in reptilian, amphibian, and mammalian systems, but I do not consider my work as specific to any one taxon. Instead, I study ecological and evolutionary processes that can be applied to a broad range of organisms. Recently, I have become especially interested in how spatial arrangements of thermal habitat influence the integrated thermoregulatory and movement strategies of small ectotherms. Past interests have included the evolution of geographically-variable life histories, the evolution of endothermy, and physiological adaptations to cold environments.

Goals Statement: While serving as Program Officer for DEE over the past two years, I have been able to support some excellent symposia across several divisions

within SICB for our annual meetings. If re-elected, one of my goals is to increase the presence of DEE at the annual meetings by supporting symposia as a primary sponsor. Last year was the first year in several years where the division was able to support a symposium from within the division. I would like to continue such support by actively encouraging and recruiting innovative proposals from within the DEE membership and by reserving the bulk of our symposia funds for divisional members. As with recent meetings, future meetings in San Francisco, CA and Austin, TX promise to be some of the most well attended meetings to date and will provide an excellent forum to highlight the cutting edge research performed by our membership. That said, our symposia are an effective means for junior researchers (graduate students, postdoctoral fellows, and assistant professors) to gain exposure to a broad audience. SICB has long been supportive of work by our younger members, and I will continue this support by encouraging participation and organization of symposia by junior members. Fostering this part of our membership will ensure that our division and society remains vibrant into the future. A second goal is to continue to work with the divisional chair and secretary to increase the profile of our division. Although we are one of the largest divisions in the society, we are generally not the primary division for our members. I hope to change this status by supporting more high profile symposia at future meetings by pursuing an award/lecture that is housed in our division (similar to that in other divisions) that recognizes the research and scholarship of our membership. Lastly, I plan to continue to support our joint socials with other divisions at annual meetings. We have seen a larger turnout for these events than in past years, and by pooling resources, we have been able to provide better food and beverage options than had we tried to support these events on our own.