

SICB Newsletter











Volume Spring 2007

Division of Ecology & Evolution (DEE): 2007 Spring Newsletter

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Message from the Chair George Bakken, Program Officer Jennifer Elwood, and Secretary Anthony Steyermark

Greetings from the DEE officers. Phoenix was a great meeting, and we would like to thank everyone who helped to make it so. DEE co-sponsored three symposia and by all accounts these were very successful.

We are looking forward to an exciting meeting in San Antonio next January, where DEE is co-sponsoring 4 symposia:

- 1. Going with the flow: Ecomorphological variation across flow regimes.
- 2. Evolution vs. Creationism in the classroom: Evolving student attitudes.
- 3. Aeroecology: Probing and modeling the aerosphere: the new frontier.
- 4. Consequences of maternally-derived yolk hormones for offspring: Current status, challenges, and opportunities.

At this time we would like to remind the division that proposals for symposia for the 2009 meeting in Boston are due by AUGUST 17, 2007. SICB has revised the procedure for developing symposia, mainly to insure the involvement of the Divisions and to make the process easier and more straight-forward. If you have any questions contact Jenny Elwood (DEE Program Officer at relevance.edu), Linda Walters (SICB Program Officer at relevance.edu) or the Meetings Director, Sue Burk at sburk@burkinc.com. The symposia at Boston will be broken into three groups: (1) divisional or co-sponsoring society symposia, (2) society-wide symposia, and (3) mini-symposia. Regardless of what type of symposium you are planning, please do not plan for more than 11 speakers or you may be in the awkward position of having to uninvite individuals.

The DEE webpage is still featuring the research of its division members. Please check out the site at http://www.sicb.org/divisions/dee.php3. If you would like to contribute material to the site please submit text files as either Word or text documents, images as either tif, jpg, png, or gif, and movies as avi or mpeg to Tony Steyermark (actives:act

We would like to thank all of the DEE members who graciously volunteered their time at the meeting to serve as judges for the best student paper competitions. Judging student papers is a great way to support DEE. If you didn't volunteer this year - please consider volunteering your time in San Antonio. We will be forwarding a more formal request for judges in the fall.

This year we had 36 students compete for the DEE best paper presentation award and 22 students competed for the best poster presentation award. Unfortunately, the DEE Secretary Tony Steyermark fell seriously ill after the meeting. It was his job to tally the input and comments of the judges and determine the winners of the competition. Thus, we won't have access to the results until he is back on his feet. We offer Tony our best wishes for a speedy and complete recovery. Meanwhile, we offer our apologies and sincere regrets to all of you who participated as contestants and judges, for the best we can do now will be to report the winners in the Fall newsletter.

After we get this problem sorted out, we think that it would be good to establish a policy of featuring the winning poster(s) at the following meeting(s). This would serve to give the winner more visibility and also provide a guide to other students on how to prepare a quality poster. We also considered mounting winning posters on the society web site as a guide to students preparing their first poster, but this should be done only after the study has been published to avoid triggering the "prior publication" rules many journals have that might limit their ability to publish the study. However, past winners might have published their winning study and could now volunteer their poster for posting on the web. We would appreciate your input on this idea. Our email addresses are at the end of the newsletter.

Attendance at the Phoenix DEE business meeting was low compared to the number of DEE members. We would appreciate your input on how we might make the division more relevant to your interests and/or make it easier for you to attend the business meeting. Our email addresses are at the end of the newsletter.

We currently have two business items to deal with before the next meeting.

First, our bylaws need to be revised to bring them into line with the Society generally. We will provide you with the revised bylaws by email or in the Fall newsletter for your approval.

The division will be electing a new chair-elect and a new secretary. The candidates for both offices are included below. Please be sure to vote!

DEE officer contact information:

Chair: George Bakken, gbakken@indstate.edu

Secretary: Tony Steyermark, acsteyermark@stthomas.edu

Program Officer: Jennifer Elwood, jelwood@aacc.edu

Division of Ecology and Evolution Business Meeting Minutes

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The meeting was called to order (15-20 attendees)

The officers were introduced: Fred Janzen (Chair), George Bakken (Chair-Elect), Jennifer Elwood (Program Officer), and Tony Steyermark (Secretary).

The minutes from last year were approved

To get back on track we will need to choose a new DEE chair-elect and DEE secretary starting in 2008, and to get back on track for rotating officers, choose the next president-elect starting in 2009.

To make the nominations process more open and orderly, DEE needs to establish a nominating committee that will be responsible for sending a blanket email inviting nominations and arranging for the candidate's vita and statements needed for the election process. At the moment, this committeee consists of the DEE officers, and we would appreciate suggestions on how to establish a more inclusive nominations committeee.

The division by-laws need to be amended to bring them in line with the rest of the society. The officers will work out the revisions and submit them to the members of DEE.

The program officer reported that dee co-sponsored or sponsored 3 symposia at the Phoenix meeting. These were: 1) Integrative biology of pelagic invertebrates, 2) Ecological dimorphisms in vertebrates: Proximate and ultimate causes, 3) Ecology and evolution of disease dynamics. She also reported that DEE had received requests for funding from 6 symposia for the 2008 San Antonio meeting. Which symposia would receive funding would be determined sometime in the spring once the budget is approved by SICB.

The secretary reported a very successful turnout (58 entries) for the student paper/poster competitions.

We discussed ways to increase the visibility and honor associated with the awards, and use it as an eductional tool for students preparing a poster for the first time. Many suggestions such as publishing the abstract or mounting the poster on the web site may create future problems for the winner in publishing their results, and were rejected. It did seem possible for us to have the winner of the "Best Poster" award save their poster so that it could be featured at the end of the meeting and at the next meeting. Possible locations might be the hall outside the poster room or a prominent position in the poster sessions. The winning poster would then become a teaching aid that would help others improve their poster presentations. Other suggestions would be welcome.

We also discussed why attendance at the business meeting was low, given that DEE is the largest single division in the society. Our best guess was that, given the nature of the society, DEE was everyone's second choice because they pursued a specialty within ecology and evolution, and had greater affinity for their specialty than the overall ecological and evolutionary context. We wondered if the meeting could be scheduled so that it was opposite fewer specialty division meetings, or against divisions with less overlapping membership.

Your insights and suggestions about both business meetings and how we could make the division more relevant to your interests would be particularly helpful to your officers.

George Bakken, DEE Chair

Elections: Candidates for Secretary and Chair-Elect

The division will be electing a new chair-elect and a new secretary. The candidates for both offices are included below. Please be sure to vote!

Candidates for Chair Elect

Michele K. Nishiguchi

Current Position: 1999- present, Associate Professor, Biology, New Mexico State University

Education: B.S. (Biochemistry, minor in Theatre Arts), University of California, Davis, 1985; M.S. (Marine Biology), Scripps Institution of Oceanography, University of California, San Diego, 1989; Ph.D. (Biology), University of California, Santa Cruz, 1994.

Professional Experience: 2005- present, Associate Professor, Biology, New Mexico State University; 1999-2005, Assistant Professor, Biology, New Mexico State University; 1997-1998, Postdoctoral Research Scientist with Dr. Charles Marshall, Department of Earth and Space Sciences, University of California, Los Angeles; 1994-1997, National Science Foundation Postdoctoral Fellow with Drs. Margaret McFall-Ngai and Edward Ruby, University of Hawaii and University of Southern California; 1994, Teaching staff, National Science Foundation course in "Adaptations to Extreme Environments", US McMurdo Station, Antarctica; 1989-1993, Teaching assistant, University of California, Santa Cruz, Department of Biology (10 quarters)

SICB Activities: Member since 1987

Other Memberships: American Malacological Union, American Society of Microbiology, Sigma Xi, Society for the Study of Evolution

Research Interests: Understanding the evolution of animal and bacterial associations has been an underlying theme in establishing the development and specificity of symbiotic relationships. There is a need to develop better systems to resolve interactions among symbiotic species where population dynamics and environmental processes clearly play an important role in the evolution of the association. These model systems should promote integrated approaches that take into account the response within as well as between various symbiotic populations and their host partners. My laboratory studies the mutualistic association between sepiolid squids (Mollusca: Cephalopoda) and their Vibrio symbionts, which provides a versatile and experimentally tractable model system to study the population dynamics and cospeciation between bacterial species and their diversity among host squids.

Since the symbiotic bacteria are environmentally transmitted to new hosts with every generation, this system is ideal for the study of specificity amongst the wide variety of bacteria that reside in the water column. Moreover, it provides a system to resolve whether the ecology of the free-living symbiont is as important as the ecology of the mutualism in the architecture of bacterial-host interactions. My laboratory examines the mechanisms that drive host-symbiont recognition, and assesses whether environmental factors or inherent genetic characters affect speciation and diversity among Vibrio bacteria. Researchers in my laboratory focus on aspects of molecular signaling, population genetics of Vibrio bacteria, molecular specificity of host recognition, competitive exclusion of non-native bacteria, genetic regulation between environmental and light organ environments, phylogeny of the Cephalopoda and the Vibrionaceae, as well as modeling how specific symbiotic niches become selected

Goals Statement: My goals as chair-elect for the Division of Ecology and Evolution (DEE) within SICB would be to start integrating more "between discipline" symposia, as well as the recruitment of underrepresented minorities into the fields of integrative and comparative biology. Since SICB changed its name from ASZ some time ago, I have felt the need to actually start "integrating" many of the disciplines that are represented (but usually in separate forums) at our annual meetings. In this manner, we can then combine research foci from groups that may not regularly have the chance to meet or exchange ideas and form new collaborations. I would also like to recruit scientists from non-traditional areas (plant biology, microbiology) for membership and their participation in SICB, by emphasizing the "I" in SICB and promoting the integration of those disciplines into our annual meetings.

Being at New Mexico State University, where our undergraduate student body is represented by > 50% ethnically diverse groups, I have been heavily involved in recruitment of underrepresented students in science, and have felt the need to increase their involvement at our meetings. I have begun to do so with my involvement in the Society for the Study of Evolution, but would also like to bring in funding opportunities, as well as special symposia that would focus on the research from these students. We could do so in such a manner by initially incorporating special symposia during

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our annual meetings, and eventually have this as a regular event within the society.

Scott R. Santos

Current Position: Assistant Professor, Department of Biological Sciences and Cell and Molecular Biosciences Peak Program, Auburn University

Education: B.Sc., Zoology (With Distinction), University of Hawaii at Manoa, 1996; Ph.D., Biological Sciences, State University of New York at Buffalo, 2002.

Professional Experience: Assistant Professor, Department of Biological Sciences, Auburn University, 2004-present; Postdoctoral Fellow, Department of Biochemistry and Molecular Biophysics, University of Arizona, 2002-2004.

SICB Activities: DEE Judge Best Student Paper (BSP) Program, 2007; Member and Presenter at SICB meetings 2003, 2006-present.

Other Memberships and Activities: Phycological Society of America, Society of Systematic Biologists

Honors and Awards: National Science Foundation (NSF)/Monbusho Research Experience Fellowship for Young Foreign Researchers, Okinawa, Japan, 2000; NSF Minority Graduate Fellowship, SUNY at Buffalo, 1996-1999; Mark Diamond Graduate Initiative Award, SUNY at Buffalo, 1998; Howard Hughes Medical Institute (HHMI) Fellowship for Undergraduate Research, University of Hawaii at Manoa, 1993-1996.

Research Interests: population genetics, symbiosis biology, genomic evolution, and resource conservation in both aquatic microbes and multi-cellular organisms.

Goals Statement: I am honored to run for Chair-elect of the SICB Division of Ecology and Evolution (DEE). As Chair-elect, I would actively work with DEE members to identify the strengths and weaknesses we have as a Division. By recognizing both, and overcoming the latter, we will be better able to promote DEE to current and potential members as a way of retaining and increasing participation while reinforcing the interdisciplinary nature of SICB. Additionally, the mission of DEE is: "... to advance, coordinate, and assist research and publication of knowledge regarding the ecological and evolutionary relations of organisms, and to act as a liaison agency between investigators in the several scientific disciplines involved." Given this mission, I feel the Division should further develop effective means of coordinating and disseminating information to DEE/SICB members as well as the general public. Currently, the most cost- and time-efficient manner in which this could be done is electronically. By expanding on its content, I envision the SICB web site becoming a dynamic hub for the sharing of scientific data among the DEE/SICB community while contributing to science outreach and education in the public sector. Lastly, graduate students and postdoctorals researchers are the future of DEE/SICB. Thus, I would continue (and hopefully, be able to expand on) the long history of encouragement and support that DEE/SICB has provided to these young scientists and future leaders of the Society.

Candidates for Secretary

Michael S. Finkler

Current Position: Associate Professor of Biology, Indiana University Kokomo, Kokomo, IN

Education: B.A., Kalamazoo College, 1991; M.S., Ph.D., Miami University, 1995, 1998

Professional Experience: Report Writer / Research Technician II, Hazelton Research Products, Inc., Kalamazoo, Michigan, 1991-1992; Adjunct Lecturer, Department of Zoology, Miami University, 1998; Assistant Professor of Biology, Indiana University Kokomo, 1998-2004; Associate Professor of Biology, Indiana University Kokomo 2004-present

SICB Activities: Member since 1997; Judge for Best Student Paper Committee, Division of Ecology and Evolution, 2003, 2005, and 2007.

Other Memberships: American Society of Ichthyologists and Herpetologists, Society for the Study of Amphibians and Reptiles, Indiana Academy of Science, Indiana College Biology Teachers Association (President 2006).

Research Interests: Energetic cost of reproduction in vertebrates; egg composition and abiotic factors influencing embryonic development and neonatal fitness in amniotes; water balance and desiccation tolerance; energetics of locomotion and locomotor performance; overwintering energetics of amphibians (see http://www.indiana.edu/~nimsmsf/MSF/main.html)

Statement of Goals: I consider SICB to be the most important and most beneficial organization to which I belong. It provides an opportunity to explore topics beyond narrow taxonomic or sub-discipline -based divisions and enables its members to develop a holistic and integrative view of the study of life. It brings together researchers exploring diverse topics and fosters the development of novel approaches and ideas beyond the traditional dogmas within specific areas of study. I see DEE as the key group within the Society in promoting that interdisciplinary and integrative outlook towards biology so that future generations of biologists can see their own specializations in the context of the entire discipline. Therefore, DEE must continue to be a proactive and vibrant element within the Society. I hope to contribute by continuing our recruiting efforts among students and professionals who are not currently members, to encourage the members we have to be more participatory (e.g., attend meetings more regularly, become involved in the "business" of the division and society, etc.), and enhance communication, interaction, and collaboration between members in our division as well as among divisions to promote the sharing of ideas and the development of novel approaches to the study of biology.

Aaron R. Krochmal

Current Position: Assistant Professor of Biology, Department of Natural Sciences, University of Houston - Downtown

Education: B.S. in Biology, minor in Classics, June 1996, Union College, Schenectady, NY; M.S. in Biology, June 1998, New York University, New York, NY; Ph.D. in Ecology, December 2003, Indiana State University, Terre Haute, IN

Professional Experience: Assistant Professor, University of Houston - Downtown, Houston, TX, 2004 - present; Visiting Assistant Professor, Whitman College, Walla Walla, WA, 2003 - 2004

SICB Activities: Member 2000-present; Meeting attendance 2001-2007, inclusive

Divisional affiliations: DEE, DCPB, DAB

Other Memberships: American Society of Ichthyologists and Herpetologists (1999-present); Society for the Study of Amphibians and Reptiles (1999-present)

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Research Interests: Functional utility and evolutionary origins of the facial pits of pitvipers; evolution of squamate foraging modes; evolution of colubrid venoms; population ecology of urban herptiles.

Goals Statement: By serving as secretary of DEE, I aim to familiarize myself with the administrative procedures of both the division and the society as a whole. I hope to use my experiences as secretary of the DEE to begin active participation in the administrative efforts of the society.