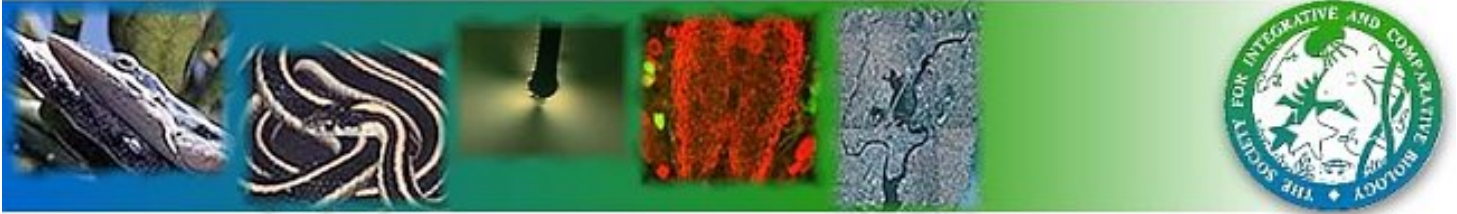


# SICB Newsletter



Volume Spring 2005

## Division of Ecology & Evolution (DEE): 2005 Spring Newsletter

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### Message from the Chair Fred Janzen, Secretary Anthony Steyermark and Program Officer Emily Carrington

Greeting from the DEE officers: San Diego was a great meeting and we would like to thank everyone who helped to make it so. DEE co-sponsored four symposia and by all accounts these were very successful.

This year we had thirty students compete for the DEE best paper presentation award and thirteen students compete for the best poster presentation award. As always the judges had a very hard time selecting the winners of the competitions. In fact, the presentations were so good this year that we have two winners of the best paper presentation. The winners are Michael O'Donnell (Hopkins Marine Station, Stanford University) for his talk entitled "*Big Breaking Waves Bashing Small Sessile Stuff*" and Robert Cox (Rutgers University) for his talk entitled "*Does Female Reproductive Investment Constrain Growth and Promote Male–Larger Sexual Size Dimorphism in Yarrow's Spiny Lizard, *Sceloporus jarrovi*?*" The winner of the best student poster competition was Elizabeth Neeley (Boston University) for her presentation entitled "*Adaptive response of color patterns in the *Labroides* to environmental parameters: a comparative approach*" Michael, Robert, and Elizabeth will each receive an award of \$100, a certificate, and our best wishes for continued success in their research endeavors.

We especially thank all of the DEE members who graciously volunteered their time at the meeting to serve as judges for the competitions: Nancy Aguilar–Roca, Mike Angilletta, Jimena Aracena, Audrey Aronowsky, Patrick Baker, Marilyn Banta, Larry Basch, Lisa Belden, Jim Biardi, Kim Bostwick, Rachel Bowden, Alex Cheroske, Dennis Claussen, Ann Cleveland, Mary Alice Coffroth, Erica Crespi, Steve Dinkelacker, Chuck Drabek, Bobby Espinoza, Michael Finkler, Jennifer Gee, Cameron Ghalambor, Allen Gibbs, Ken Gobalet, Mike Greene, Brian Helmuth, John Hranitz, Duncan Irschick, Dan Janes, Debbie Kristan, Egle Krosniunas, Jimmy Liao, Bill Lutterschmidt, Karen Martin, Marion McClary, Kevin McGraw, Rachel Merz, Don Miles, Dianna Padilla, David Penick, Maria Pereyra, Bob Podolsky, Marney Pratt, Wendy Reed, Margaret Rubega, Mike Sears, Brent Sinclair, Tony Steyermark, Jonathon Stillman, Ralph Turingan, Jeff Walker, Marcus Webster, Joe Williams, Blair Wolf, and Pete Zani.

We are looking forward to an exciting meeting in San Diego next January, where DEE is sponsoring or co-sponsoring three symposia: 1) "*Ecological Immunology: Recent Advances and Applications For Conservation and Public Health*" (a Society-wide symposium), organized by Kelly Lee, Bram Lutton, and Martin Wikelski; 2) "*Integrating Function over Marine Life Cycles*", organized by Robert Podolsky and Amy Moran; 3) "*Ecophysiology and Conservation: the Contributions of Energetics*", organized by Robert Stevenson.

The DEE webpage is now 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 ([acsteyermark@stthomas.edu](mailto:acsteyermark@stthomas.edu)).

### Division of Ecology and Evolution Business Meeting Minutes

Meeting called to order at 5:20 on Thursday January 6, 2005

The meeting started with 12 members in attendance

Minutes from last year were approved.

Rachel Merz spoke about the digital library that Trish Morse is organizing. This project will create online materials for use by K–12 as well as college students. The modules of this digital library will focus on the strengths of SICB members and will try not to overlap with existing libraries. The digital library will be tied to the Biological Education Network (BEN). Rachel requested that anyone who would be interested in providing materials for the digital library or would like to help with organizing additional modules she contact her or Trish Morse.

Secretary's Report – Michael Temkin

Mike reported that forty-two students were participating in the student competitions for the best paper and poster presentation. Mike said that fifty-six people were serving as judges this year. Mike thanked all of those who were participating. Mike reported that we are beginning to organize a webpage to showcase the research of DEE members. Almost thirty members have responded to a request for material for the webpage. Mike has passed the material on to the SICB webmaster who is going to assemble the webpage. We plan to display a member's entry each time someone accesses the DEE webpage on the SICB site. The entries will appear randomly. A link to a webpage containing entries for all of the research material will also appear on the DEE webpage.

Program Officer's Report – Emily Carrington

Emily reported that DEE sponsored four symposia here at the San Diego meeting: 1) "*Desiccation Tolerance in Animals, Microbes, and Plants: Comparative Mechanisms and Evolution*", 2) "*The New Microscopy: Toward a Phylogenetic Synthesis*", 3) "*Mating Systems and Sexual Selection in Hermaphrodites*", and 4)

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"*Complex Life—histories in Marine Benthic Invertebrates: A Symposium in Memory of Larry McEdward*". She stated that so far DEE will be sponsoring three symposia at the 2006 annual meeting in Orlando. These symposia are: 1) "Ecological Immunology: Recent Advances and Applications For Conservation and Public Health" (a Society-wide symposium), organized by Kelly Lee, Bram Lutton, and Martin Wikelski; 2) "Integrating Function over Marine Life Cycles", organized by Robert Podolsky and Amy Moran; 3) "Ecophysiology and Conservation: the Contributions of Energetics", organized by Robert Stevenson.

Dianna Padilla asked if the executive committee could be approached about removing the requirement of symposia organizers to submit a proposal to NSF before the Society would waive speakers fees. Dianna pointed out that NSF proposals required significant time and energy to write, and had very small chances of being funded. She said that she hoped that the Society would recognize that the time of symposia organizers would be better spent in other ways.

Emily reminded us that last year we had begun to change "topics" to choose from when we submit our abstracts. She said that these new topics seem to be working better than the old topics. She asked that if anyone had additional topics to add or change that they should contact her.

Emily discussed the decision to remove the divisional association requirement from the best student paper and poster competition. She said that at the with the ability of SICB members to change their divisional associations whenever they want it did not seem to make sense to require students to belong to the particular division in which they were competing.

After a brief discussion, the DEE member in attendance agreed that we should no longer require students to belong to our division to compete in the best student paper and poster competitions. Furthermore, those at the business meeting, did not have a problem with allowing students from associated organizations, such as the American Microscopical Association, to compete for the best student paper and poster awards.

Fred Stollnitz from the National Science Foundation discussed the reorganization of the Integrative Organismal Biology Section at NSF. Fred said that there were now four clusters: Behavioral Systems, Developmental Systems, Environmental and Structural Systems, and Functional and Regulatory Systems. Fred reported on the funding cuts at NSF and said that funding rates were expected to be between 10 and 15%. He said that it would be unlikely that there would be funds available to support symposium speakers. However, Fred said that they were trying to maintain the size of awards and the early career programs. He also discussed that there are special programs that members of SICB may be interested in and he suggested that we check the NSF information booth at the meeting or the website for more information.

At this point the SICB Executive Committee – including John Wingfield, Sally Woodin, John Pearse, Brett Burk, and Ronald Dimock joined the business meeting.

John Wingfield introduced the committee and spoke to several Society Issues:

- 1) NSF will not fund symposia at levels that we have had in the past and we need to increase our levels of support for symposia.
- 2) Revenue from journal is going down – one problem is the loss of subscriptions and the second problem is that we get no revenue from the online version of the journal.
- 3) To solve these problems the Society is considering joining with a real publisher for marketing, connections to abstracting organizations, and web access.

Mary Alice Coffroth gave the President's Report. Mary Alice reported that at the Executive committee meeting several issues had been raised.

- 1) The society as a whole is in good but not great financial shape. A large part of the financial problem is the revenues from the journal are decreasing. To solve this problem, the society is considering four different publishers: Blackwell Publishing, Elsevier, Oxford University Press, and University of California Press. By publishing through these presses, we may get more money for online access, but price increases may occur. Therefore, we are seeking need input on this issue from division members.
- 2) Some suggestions were made to give the journal a face lift: including papers other than symposia; reviews; "hot recent papers". Additional suggestions are needed.
- 3) The site for the 2006 meeting is Orlando, and the site for the 2007 is downtown Phoenix.
- 4) The suggestion was made that the Committee on Diversity, currently an ad hoc committee, should be made a standing committee.
- 5) The Society website contains some small changes in wording to the Society strategic plan.

The suggestion was made to infuse a greater conservation biology component into the society. There is interest from younger and newer members in conservation biology issues. How can the society make a meaningful contribution?

We will be sending a ballot during the summer for elections of division chair and program officer, as well as for a by-law change regarding the best student paper award rules.

Sophia Hussain, the DEE student representative, discussed two workshops at next meeting: How to get the most out of your graduate career, and How to get the most out of your postdoc years? She also discussed the idea of a "First time orientation", based on how to navigate your way through your first SICB meeting as a student.

Respectfully Submitted,

Anthony Steyermark

DEE Secretary

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### DEE Candidates for Election

#### *Candidates for DEE Program Officer*

**Jennifer Elwood**

**Current Position:** Assistant Professor, Biology Department, Anne Arundel Community College

**Education:** B.A., Lehigh University, 1986. M.S., Old Dominion University, 1988. Ph.D., Drexel University, 2003.

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**Professional Experience:** Instructor, Drexel University, 2000–2004; Research Assistant, Desert Tortoise Project, Drexel University, 1999; Graduate Assistant, Drexel University, 1995–1998; Adjunct Professor, Camden County College, 1991–1997.

**SICB Activities:** Member since 2000

**Other Memberships:** American Society of Naturalists; American Society of Ichthyologists and Herpetologists, Society for the Study of Amphibians and Reptiles, Herpetologist's League, Virginia Herpetological Society, Nature Conservancy.

**Research Interests:** My research interests are varied. Current research centers around the physiological ecology of amphibians, primarily salamanders. Past focal areas have been in functional morphology, particularly the feeding mechanics of salamanders.

**Goals Statement:** I have been attending SICB meetings off and on since the 1980's, first as a student and now as a member. In all that time I have always found this society to provide the diversity that someone with my varied research interests desires. That is a key strength of this society – the large interdisciplinary scope. Because I have enjoyed the benefits of this society for so long, I now desire to give back to the group. As such, I think it important that we continue in this tradition and try to bring together more of the various fields with symposia.

**Austin W. Francis, Jr.**

**Current position:** Visiting Assistant Professor, Richard Stockton College, NJ

**Education:** B.Sc., Marine Biology, Roger Williams University, 1993. M.S., Zoology, University of Rhode Island, 1996. Ph.D., Biology, Florida Institute of Technology, 2002.

**Professional Experience:** Visiting Assistant Professor, Biology, Saint Joseph's University, 2003–04. Post–doctoral Fellow, Biology, Villanova University, 2003.

**SICB Activities:** Member 2000–present; Poster Presentation in 2000; Oral Presentations in 2001, '02, '04, '05; Session Chair 2005.

**Other Memberships:** American Elasmobranch Society, American Society of Ichthyologists and Herpetologists, Sigma Xi

**Research Interests:** Functional morphology, ecological morphology, and evolution of vertebrates, particularly fishes.

**Statement of Goals:** Since joining SICB as a graduate student, I have found the annual meetings priceless for staying abreast of my field. I have also valued the ability for session programming to bring diverse groups together in an interdisciplinary setting. As Program Officer, I would continue to develop these traditional strengths, but I would also work towards developing symposia and programming sessions that bridge society divisions. I also acknowledge that symposia and session programming strongly influence society membership and meeting attendance. My discussions with junior members of the society suggests that more could be done to represent their interests. All together, I would work hard to bring traditional, contemporary, and novel programs together that synthesize ideas and represent today's multi–disciplinary approach to ecology and evolution.

### *Candidates for DEE Chair–Elect*

**George S. Bakken**

**Current Position:** Professor, Department of Ecology and Organismal Biology, Indiana State University, Terre Haute, IN

**Education:** B.S. North Dakota State University, Fargo, ND, 1965. M.A., Rice University, Houston, TX, 1967. Ph.D., (Physics), Rice University, Houston, TX, 1970. Ford Foundation Fellowship (Ecology), Missouri Botanical Garden and The University of Michigan, 1970–1972.

**Professional Experience:** Research Associate II, 1972–1975, The University of Michigan, Ann Arbor, MI. Assistant Professor, 1975 – 1978, Associate Professor, 1978 – 1983, Professor 1983 – 1988, Distinguished Professor of Arts and Sciences, 1988–present, Director, Center for Biodiversity Studies, 1994–present, Indiana State University, Terre Haute, IN.

**SICB Activities:** Member since 1983. I have attended most meetings since joining and chaired many oral paper sessions, but I have not yet held a leadership position.

**Other Memberships:** American Ornithologist's Union, American Association for the Advancement of Science, British Ecological Society, Ecological Society of America, Indiana Academy of Sciences, Sigma Xi.

**Research Interests:** As you might expect from my peculiar background, my interests are interdisciplinary and process–oriented. Most of my research has involved aspects of organismal biology that benefit from explicit use of methods and principles drawn from physics (<http://www.indstate.edu/ecology/faculty/bakken.htm>). My published work has emphasized thermal aspects of physiology, and behavior, as well as micrometeorology and ecology. More recently, I've been going back to my roots in optical physics with ongoing projects on thermal imaging by the pit organ of rattlesnakes and the use of airborne thermal imaging to construct thermal maps of lizard habitats for a variety of studies.

**Statement of Goals:** My continuing involvement with SICB reflects the interdisciplinary emphasis of the society. It has become the premier venue for physiological (or better, functional) ecology studies that cross levels of organization to give functional understanding of ecological processes. The many students I have brought to meetings have benefited greatly from interactions with people that work at different levels of organization. My priority would be to continue and strengthen support for student attendance at meetings as essential to both the professional development of students and the future of the society. We should continue to build on our strength in functional ecology by encouraging symposia that show vertical linkages by recruiting and making welcome speakers that address an ecological problem at various levels of integration, from natural history and systematics through behavior and organismal function to cellular mechanisms. At least in my personal contacts, it appears that conservation and wildlife management activities are taking increasing notice of the ecological role of physiology, behavior, and function. This is an area where the society has begun, and could continue, to make useful contributions to a wider audience.

**Joe B. Williams**

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**Current Position:** Associate Professor, Ohio State University

**Education:** B.A., David Lipscomb University, Nashville, Tennessee, 1970. M.A., Zoology, University of Illinois, Urbana, Illinois, 1974. Ph.D., Ecology and Evolution, University of Illinois, Urbana, Illinois. 1977. Postdoctoral Fellow, University of Pennsylvania, 1980–1982.

**Professional Experience:** Visiting Instructor in Biology at University of Illinois, 1976. Assistant Professor, Division of Natural Science, Pepperdine University, Malibu, California, 1977–1979. Postdoctoral Fellow, University of Pennsylvania, Philadelphia, Pennsylvania, 1980–1982. Associate Professor, Pepperdine University, Malibu, California, 1982–1986. Visiting Research Fellow, University of Western Australia, Perth, Western Australia, 1986. Research Fellow, University of Arizona, Tucson, Arizona, 1986–1989. C.S.I.R. Fellow, University of Cape Town, Rondebosch, South Africa, 1988–1994. Assistant Professor, Ohio State University, 1994–1998.

**SICB Activities:** 6 posters, 8 oral presentations, symposium speaker for SICB symposium "Taking Physiology to the Field". 17 papers published in *Physiological and Biochemical Zoology*. 1 paper published in *Integrative and Comparative Biology*. Editorial Board, *Physiological and Biochemical Zoology*.

**Other memberships:** Ecological Society of America, American Ornithologists Union, Cooper Ornithological Society.

**Research Interests:** Research in our laboratory is generally concerned with both pattern and process of physiological adaptation of animals, especially vertebrates. Because studies on animals living in harsh environments often provide insights into the constraints and mechanisms driving physiological adjustment, we concentrate much of our work in regions of climatic extremes, especially deserts. Much of our work has revolved around attempts to understand the factors that influence energy and water requirements because these together are fundamental requisites for life and likely candidates for the action of natural selection. We have two major themes in our laboratory at the moment, an examination of the influence of lipids in the skin of birds on cutaneous water loss, and a study connecting genotype with phenotype on European Stonechats. We have found that larks from deserts have lower cutaneous water loss than larks from mesic regions, and that this is associated with changes in the lipid composition of the skin. We are currently identifying specific lipid molecules expressed by the epidermis when birds are exposed to different environments. For our study on Stonechats we are exploring selection on mitochondria and how changes in polypeptides encoded by mtDNA might influence oxygen consumption both at the organelle and whole-organism level.

**Goals Statement:** The SICB has as one of its goals to facilitate "Integrative Biology" among its members. I think that we need to highlight this goal, and to insure that members of the DEE have the opportunity to exchange ideas with other members in far different fields of endeavor from their own.