

Volume Spring 2005

Division of Systematic and Evolutionary Biology (DSEB): 2005 Spring Newsletter

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Message from the Chair

Kenneth M. Halanych

Greetings from DSEB! The meeting in San Diego was a success, with good participation on several fronts. Once again systematic tools figured predominately in many talks across many divisions. Although there was a strong showing at the meeting, we need better participation in the business meeting; among other things, the business meeting serves as a conduit for feedback to the SICB administration. I would like to thank Rena Bryan for volunteering to help out as the student/postdoc representative. Also, Don Swiderski has now officially stepped down from the role of Program Officer (hands down the most time-consuming office). Thanks Don!!! Michele "Nish" Nishiguchi will no doubt be able to fill his shoes as the new PO. Don "punish-me-some-more" Swiderski is now the Chair-elect. Welcome aboard, again.

Symposia are a central aspect of the SICB meetings. If you have ideas for symposia of wide interest with a systematics angle, please contact one of the DSEB officers. Likewise the DSEB officers have been thinking about how to improve or restructure the Phylogenetics for Dummies workshop. Any ideas or input would be welcome.

Three issues that have come up in both the business meeting and across SICB are promoting diversity, a digital library, and conservation biology. If you know individuals (undergraduate on up) who would like to attend SICB's annual meeting and whose presence would help promote diversity, please let either the DSEB officers or someone on the SICB diversity committee know. "Diversity" does not only apply to race/gender issues but also to physically challenged or disabled individuals. SICB is actively trying to become more representative and DSEB should do more than its part to help.

The second item is the digital library. Electronic tools are becoming more and more a part of the classroom, both real and virtual. Patricia Morse and Henry–John Alder have been heading up an initiative to pull digital resources together on a topic–by–topic basis. One of the main goals of this is to make our lives as educators easier. Why reinvent the wheel (or in this case a powerpoint slide) if a colleague already has made a nice digital representation of the point you are trying to make to your undergraduates? If you are like me, just about anybody can make better–looking and more understandable slides. If you have a good series of digital lectures on a particular topic, please consider depositing it to the digital library. The intent is to have the library be a peer–reviewed undertaking to help ensure some quality control.

Third, SICB is actively exploring the membership's interest in conservation biology. Since conservation, biodiversity, and systematics go hand—in—hand, DSEB needs to consider the role we play in promoting this interest. This brings up a broader issue of the foci of our division. It seems to me that many of the systematists who attend DSEB are primarily driven by organismal questions, as opposed to methodological issues or molecular evolution. When the Society of Systematic Biologists decided to meet with the Society for the Study or Evolution, DSEB took a big hit, even though many of us are members of both DSEB/SICB and SSB. I, for one, am not convinced the division really recovered. Are there ways that we can strengthen the division, not only within SICB but in terms of international reputation as well? Should we make a more active effort to coordinate with over societies? Is the scope of DSEB broad enough or should we make a more active effect to develop topics such as phylogeography, biodiversity, and population genetics? Alternatively, should we make more out of the fact that we are the ones actually solving the tree of life and not just talking about how to do it? How do we do this? Your thoughts are welcome.

Message from the past Program Officer, Don Swiderski, and current Program Officer, Michele Nishiguchi

Thanks and Congratulations:

Congratulations to Maxi Polihronakis, of the University of Connecticut; her presentation "Why are some genitalia asymmetrical?" was unanimously chosen as the division's Best Student Paper. Student presentations continue to be a strength of this division; Maxi's was one several fine papers presented by students in this division. All are to be congratulated for a job well done. Thanks for job well done (and under especially soggy circumstances) also go to the judges of this year's student presentations: Ken Angielczyk, Alexandra Deufel, and Francesco Santini.

Special thanks go to Mark Webster, of the University of Chicago, for a very comprehensive and informative "Phylogenetics for Dummies" presentation on the relationships of phylogeny and ontogeny and the uses of each source of information to test hypotheses about the others.

News from the P.O. meeting:

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In an effort to encourage greater participation in the Best Student competitions, students are no longer required to be members of the divisions in which they compete, but they will only be allowed to win twice, lifetime (once for poster, once for talk), regardless of division. In other words, a student winning for best talk in DVM, can compete for best poster, but cannot compete again for best talk in DVM or any other division. DSEB never required students to be members to compete for our award, so we do not need to make a change there. The change we will have to make is to begin awarding separate prizes for talks and posters. We will retain the right to make no award in a category if none of the competing presentations is of the high caliber we would expect of a "best paper."

The society would also like to see us (and other divisions) jazz up the division page a bit. Our webmaster Ruedi Birenheide has done some wonderful things with symposium pages, we should take advantage of his skills to help promote the division. Send suggestions for content, pictures, a logo, links to me or any of the other officers. So far the one idea in the works is to include material from Mark Webster's "Phylogenetics for Dummies" presentation and any previous installments that can be reclaimed from the dustbins.

As always, the program officers are looking for feedback on the organization of the meeting. Your selection of key words and topics on the abstract submission form are key pieces of information used to organize the sessions; the key words also form the index for the program book. If you feel the important key words or topic categories were missing, please let us know. We would also like to know if it would be useful to include taxon as an additional item on the submittal form, separate from topics and key words.

Symposia:

Division support (financial and otherwise) was amply rewarded by three symposia presented in San Diego: "Terminal Addition" by Nigel Hughes and Dave Jacobs, "WormNet" by Ken Halanych, and "Vertebrate Dentition" by Moya Smith. At Orlando 06, we can look forward to "Zebrafish in Comparative Context" by Jackie Webb. Unfortunately, there were no proposals from within our division addressing issues of particular concern to our members. Given our recent successes, perhaps we can view this as a well deserved break; but we should not rest too much. Now is the time to begin developing symposium ideas for Phoenix 07. Think of a topic you would like to see presented and discussed, and email our current PO, Michele Nishiguchi (nish@nmsu.edu). It need not be a fully formed proposal with a complete list of speakers and titles; for now we just need ideas that we can help you develop into a complete and winning proposal by the August 19 deadline.

Message from the Secretary

Pat Reynolds

Greetings to all. I am pleased to say that we adopted a revised set of bylaws at the DSEB business meeting in San Diego; one amendment to the previously posted proposed changes that was passed at the meeting was to widen the definition of the student rep to include undergraduates. The new bylaws bring our officer positions and terms into line with common SICB practice, which will hopefully help us to avoid confusion and ensure smooth transitions in the future. The new bylaws also incorporate the new society—wide policy on divisional best paper and poster awards (see PO message). You can now view the new bylaws on the SICB web site. Many thanks to all who attended the meeting and contributed to the discussion.

Minutes of the 2005 DSEB Business Meeting:

Chair Ken Halanych convened the meeting on Jan. 6th at 5:15 pm, 12 members being present (establishing a quorum).

SICB webmaster Ruedi Birenheide and Trish Morse presented the initiative to place a digital library of educational resources on the SICB web site. The first of what is planned to be many modules, on biomechanics, is currently up and running, and further submissions are welcome. Trish explained that these modules need not be original, may be attributed, and will be peer–reviewed.

Program Officer Don Swiderski reported on a number of programming issues. He explained the new policy on best student paper and poster awards. He also discussed issues involving keywords for abstracts, specifically the use of taxa as keywords, and the use of keywords for indexing in the program and organizing the sessions. He asked that anyone with concerns on this issue to email SICB Program Officer Cate Louden or himself. He reported on location plans for the upcoming meetings (Orlando 2006 and Phoenix 2007), availability of funds for a divisional social, and the options for the "Phylogenentics for Dummies" workshop in the future. He invited members to contact him with any concerns arising from the session programming, and welcomed Michelle Nishiguchi as the new program officer.

A visit from the Executive Committee (EC) of SICB included comments from President John Wingfield, who reported on two present concerns: first, that NSF funding for symposia will likely not be maintained at past levels, and secondly, that the journal of the society, Integrative and Comparative Biology, is seeing institutional subscriptions dropping, and the EC is considering alternative publishing options, specifically to find professional help to enhance the journal's indexing and marketing. He commented that symposia and student support remained the highest society priorities.

Secretary Pat Reynolds presented the motion to adopt proposed revisions to the bylaws. Ken Halanych proposed an amendment to strike reference to "Graduate" from all mention of "Student/ Postdoc Representative," thereby opening the position to undergraduates as well. The amendment was seconded by Joan Ferraris, and after discussion passed unanimously. The motion to accept the revised bylaws then passed unanimously.

Rich Mooi proposed that the bylaws governing election of the Student Representative be temporarily suspended, allowing the immediate appointment of a Student Representative for the division, rather than enduring a year-long delay to elect someone to the position. This was seconded by Ken Halanych. After discussion, which included comment on the value of having a student representative in place immediately, the motion passed unanimously.

Respect	fully	subm	itted,

Pat Revnolds, Secretary

Message from the Student Representative

Rena Bryan

Greetings and I would like to share with the division the orientations and workshops in store for all student and post—doc members of SICB for the 2006 meeting in Orlando, Florida.

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On the first day of meetings there will be the 1st Timers Orientation, with discussion of topics on how to get the most out of your SICB meeting including: how to find relevant talks/posters, how to find everyone at the meetings and socializing, how to approach a "big guy or gal," how to enter or leave a room, how to plan your meeting, and how to get involved in SICB or attend business meetings.

The Student/Postdoctoral Affairs Committee (SPDAC) Free Lunch will be the second day of meetings, which is a time for all students and post–docs to get to know other student and post–doc members. This is also when the annual SPDAC meeting will be held.

On the last evening of meetings, two workshops for students have been planned by SPDAC to be held one after another at 6–7 pm and 7–8 pm. The first will be aimed at undergraduates with plans for graduate school and current graduate students, while the second will be aimed at graduate students looking to land a post–doc/academic job and post–docs. The detailed agendas for these workshops are as follows:

Workshop #1: "Optimizing Your Graduate School Experience" (6-7 pm):

- i. Dealing with funding your graduate studies (even after TA-ships expire)
- ii. Finding a good mentor (COS, societies, web listserves)
- iii. Getting funding as a graduate student
- iv. Getting to meetings and making future connections (networking)
- v. Building your CV to impress future hirers

Workshop #2: "Strategies for Landing an Academic Job/Post-doc" (7-8 pm):

- i. The differences in the requirements for RO1, comprehensive, and undergraduate liberal arts college resumes.
- New and senior-faculty SICB members from each of 3 different types of academic institutions present basic expectations of research/teaching/service at their institution.
- iii. Follow-up questions from the audience

I am really pleased to be the new student representative and I want to wish everyone a very exciting and productive year.

Meetings of Interest to the Division

Evolution 2005 will be a jointly sponsored conference of the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists. It will be held June 10–14, 2005 at the University of Alaska Fairbanks, and hosted by the Institute of Arctic Biology and the University of Alaska Museum of the North. Further information at: http://uaf-db.uaf.edu/evolution05/

Elections: Candidates for Secretary-elect (term: 01/2006 to 01/2007; assumes position of Secretary 01/2007-01/2010)

Francesco Santini

Current Position: Marie Curie Research Fellow, Muséum National d'Histoire Naturelle, Paris,

Education: 1997 Laurea degree in Biological Sciences, University of Pisa, Italy. 2003 Ph.D. in Zoology, University of Toronto, Canada.

Professional Experience: May 2003-present, Marie Curie Research Fellow, Museum National d'Histoire Naturelle, Paris.

SICB Activities: Member since 1999; presentations at 2000, 2001, 2002, 2003, 2004, 2005 Annual Meetings; co-organizer of the symposium on "Patterns and processes in the evolution of fishes" held during the 2003 annual meeting in Toronto and sponsored by SICB, DSEB, DVM, DEE, DEDB, and the Paleontological Society; co-organizer of the "Phylogenetics for Dummies" workshop held during the 2003 annual meeting.

Other Memberships: Society of Systematic Biology; Society for Conservation Biology; European Society for Evolutionary Biology; Systematic Association; Society for the Study of Evolution; National Association of Science Writers.

Research Interests: Phylogenetic relationships of acanthomorph (spiny–rayed) fishes, with particular emphasis on pufferfish and allies (Tetraodontiformes); evolution of key morphological structures in fishes; problems associated the use of model organisms in studies of evolutionary biology and genomics; theoretical aspects of the use of incomplete fossil taxa in phylogenetic analyses.

Goals Statement: Systematics has a central role in much of the research performed by SICB members, and although many presentations at the society's meetings contain phylogenies, DSEB divisional events are attended by very few people. As DSEB secretary I would work with the other divisional officers to try to encourage more DSEB members from attending the divisional meetings. I would also work towards the goal of increasing the membership of the division, both through the traditional conference activities such as symposia and workshops, and through new outreach events.

Marta J. deMaintenon

Current position: Associate Professor, Marine Science, University of Hawaii at Hilo; 2004–present

Education: BS 1983: Biology (Marine Biology), Millersville University of Pennsylvania. MS 1990: Marine Biology and Fisheries, University of Miami Rosenstiel School of Marine and Atmospheric Science. PhD 1996: Integrative Biology, University of California, Berkeley.

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Professional Experience: Assistant Professor of Marine Science, University of Hawaii at Hilo, 1999–2004. Post doc, Invertebrates, American Museum of Natural History, 1998–1999. Visiting Postdoctoral Curator, Invertebrate Zoology, Santa Barbara Museum of Natural History, 1997–1998.

SICB Activities: Member 1996–present; presentations/abstracts in 1999, 2000, '01, '03, '04, '05; Co-organized symposium on Integrative Approaches to Biogeography, 2002; Judge, Best Student Paper Award (DIZ), 2004, 2005; DSEB nominating committee 2004.

Other Memberships: American Malacological Society, American Microscopical Society, Paleontological Society, Sigma Xi, Society for the Study of Evolution, Society of Systematic Biologists, Willi Hennig Society

Research Interests: Systematics and evolution of gastropod molluscs, including biogeography/phylogeography and origin of novel character complexes

Goals Statement: SICB is one of the few societies for which I attend the meetings every year if possible, regardless of where they are located, because it is a unique society in terms of its breadth and inclusiveness, and is incredibly supportive of students. I would be happy to further support DSEB by serving as secretary. DSEB often finds itself in an odd position as being at the root of â€Ücomparative and integrative biology', but the division itself often does not get much attention. My primary goal is to support and promote the division and its activities. As secretary, I will seek to promote DSEB by keeping members and potential new members informed and publicizing activities of the division to the SICB membership, as well as promoting outreach to potentially interested systematists and budding systematists outside SICB.

Candidates for Program Officer-elect (term: 01/2006 to 01/2007; assumes position of Program Officer 01/2007-01/2009):

Rachel Collin

Current Position: 2005–present: Adjunct Professor, Department of Biology, McGill University, Canada; 2002–present: Director of the Bocas Research Station, Smithsonian Tropical Research Institute, Panama; 2002–present: Staff Scientist, Smithsonian Tropical Research Institute, Panama.

Education:1996–2002: Ph.D. University of Chicago, Committee on Evolutionary Biology. Thesis: Evolution of mode of development in Crepidula (Gastropoda: Calyptraeidae): Causes and consequences. Advisor: Barry Chernoff. 1993–1996: M.Sc. Department of Zoology, University of Washington. Thesis: Comparative Biology and Evolution of Gastropod Development. Advisor: Richard Strathmann. 1989–1993: Sc.B. Aquatic Biology, Brown University; Magna cum Laude and departmental honors. Undergraduate Honors Thesis: The size advantage hypothesis as a model for sex change in the common slipper shell (*Crepidula fornicata*). Advisor: Steve Gaines.

SICB Activities: 2003: SICB DSEB best student paper judge; 2002–present: SICB Division of Systematic Biology and Evolution nominating committee; 2002: SICB 2002 Symposium co-organizer: Integrative approaches to biogeography; 2000–2002: SICB Student and Post–Doc planning committee; 2000–2002: SICB Division of Systematic Biology and Evolution student representative; 2000: SICB meeting session chair.

Other Memberships: Society of Integrative and Comparative Biology (SICB), Society of Systematic Biologists, Society for the Study of Evolution, American Malacological Society (AMS), International Society of Invertebrate Reproduction and Development (ISIRD), American Microscopical Society.

Research Interests: Life history evolution in marine invertebrates, systematics, evolution of molluscs, conservation, functional morphology, paleobiology.

Anne M. Maglia

Current Position: Assistant Professor, University of Missouri-Rolla (since 2002)

Education: B.S., Zoology, Ohio University, 1992; M.S., Biological Sciences, East Tennessee State University, 1994; Ph.D., Ecology and Evolutionary Biology, University of Kansas, 2000.

Professional Experience: Postdoctoral Associate, 2000–2002, Natural History Museum and Biodiversity Research Center, and Division of Biological Sciences, University of Kansas.

SICB Activities: Co-organizer and presenter (with D. Swiderski) of DSEB workshops "Phylogenetics for Dummies: Picking a Tree from the Forest? and "Phylogenetics for Dummies: Optimizing Characters on Existing Hypotheses of Relationships"; Chair for DSEB paper sessions; Judge for DSEB Student Paper Competitions; DSEB Program Officer 2000–2001.

Other Memberships: Society for the Study of Amphibians and Reptiles, International Society for Computational Biology, American Society of Ichthyologists and Herpetologists, The Herpetologists? League, Midsouth Computational Biology and Bioinformatics Society, Phi Sigma, Sigma Xi

Research Interests: My research focuses on the evolution of amphibians, with specific interests in phylogenetic relationships within and among groups, the role of development in generating anatomical diversity, and the evolution of life history traits. In addition, much of my research also focuses on the development of computational methods for visualizing and analyzing biological data, including the application of data mining techniques to understanding character non-independence, the development of a web-accessible library of 3D visualizations of anatomy, and the use of distributed databases and genetic algorithms to monitor and model biodiversity.

Goals Statement: My goal as DSEB program officer would be to continue to enhance the reputation and visibility of our division both within SICB and among the scientific community. Because accurate phylogenies based on sound methodologies are crucial to all facets of integrative and comparative biology, DSEB is unique in that we characterize the foundation for much of the research in other SICB divisions. Our membership may seem small, but DSEB is a secondary affiliation for many SICB members, and we represent a significant part of much of the research in the society. With this role comes the responsibility of demonstrating the importance and utility of systematic methodologies to strengthening comparative research. I would continue our divisional efforts to develop symposia and workshops that attract participants, sponsorship, and audiences from other SICB divisions and scientific societies, and I would focus on promoting the success and participation of the student members of our division.