



## Division of Ecoimmunology and Disease Ecology

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The Division of Ecoimmunology and Disease Ecology (DEDE) is SICB's newest division, approved by the SICB Executive Committee in January 2014. We invite members of the SICB to join this division. In May, when SICB ballots are distributed, members of the division will be asked to approve a set of DEDE Bylaws and to vote for officers of the division. **You must declare yourself a member of DEDE (see below) to vote.**

The bylaws are included in this newsletter and candidate profiles are included as well.

How to declare yourself a member of DEDE.

1. **When you pay your 2014 SICB dues.** You will have the opportunity to declare your divisional affiliation when you pay your dues. If you wish to join DEDE, please make sure you check the appropriate box as you join/renew your membership. SICB members are not limited in the number of divisions of affiliation.

2. **Anytime.** You may update your member data, including divisional affiliations. Go to the "Directory," always on the lower left panel of any SICB web page. Enter your last name and SICB ID Member Number. If you don't remember your SICB Member Number, on the login page click on the [Member Number Retrieval](#) link to request that the number be sent to you.

SICB welcomes its newest division and we invite all interested members to join today and participate in electing its first officers.

Lou Burnett  
SICB Secretary

### Candidates for Chair *Greg Demas*



**Current Position:** Professor and Associate Chair, Department of Biology, Indiana University.

**Education:** B.A., Psychology, Millersville University (1991); M.S., Experimental Psychology, Villanova University (1993); Ph.D., Biopsychology, Johns Hopkins University (1998).

**Professional Experience:** Post-doc, Biology, Georgia State University (1998-2001); Professor, Biology (2001-present); Associate Editor, *American Naturalist*, *Journal of Experimental Zoology*, and *International Journal of Zoology*; Editorial Board, *Hormones and Behavior*; Secretary, Society for Behavioral Neuroendocrinology (2011-2013);



Co-author, *Ecoimmunology* (OUP, 2011).

**SICB Activities:** Meeting Participant; Presentation/Poster Judge (DAB, DCE), Candidate for DAB Chair (2012); Co-organizer of symposia, Bridging the Gap between *Ecoimmunology* and *Disease Ecology* (2011) and *Mechanisms and Methods in Ecological Immunology* (2014).

**Other Memberships:** Animal Behavior Society; Society for Behavioral Neuroendocrinology, North American Society for Comparative Endocrinology

**Research Interests:** The primary goal of my laboratory's research is to apply an integrative approach to understanding the interactions among the nervous, endocrine and immune systems and behavior within ecologically relevant environmental contexts. Ongoing research in my laboratory focuses on investigating seasonal changes in immune function, acute phase responses, and sickness behaviors from both ultimate and proximate perspectives.

**Goals Statement:** I have attended SICB for the past fourteen years as a faculty member. I have appreciated the meeting's focus on physiology and behavior from a broad integrative perspective that includes ecological and evolutionary approaches. The creation of a new division with SICB raises unique challenges but also an exciting opportunities. At its core, the goal of DEDE is to bring together researchers in the areas of *ecoimmunology* and *disease ecology* and provide a new forum to present research in their respective sub-fields (e.g., ecology, physiology, immunology, parasitology, epidemiology). If elected, my primary focus will be to build upon the research diversity within this new division by encouraging the development of innovative and creative divisional and society-wide symposia that continue to bridge these complementary areas. Another important role for DEDE is the intellectual and financial support of students and post-docs. SICB is very "student-friendly", providing a forum for students at every level of research to present their work. Students have limited budgets, however; I will work to ensure that that SICB remains an affordable option via fellowships and travel awards. I will also strive to enhance opportunities for professional development and student networking (e.g., meet-the-professor lunches, forums on funding opportunities). If elected, I will work hard to ensure that DEDE develops into the intellectual home for *ecoimmunology* and *disease ecology* within the society.

### Lynn B. Martin



**Current Position:** Associate Professor and Graduate Director (as of Fall 2014), University of South Florida, Department of Integrative Biology

**Education:** B.S., Virginia Commonwealth U (1996); M.S., Virginia Commonwealth U (1999); M.S., Princeton U (2001); Ph.D., Princeton U (2004); Postdoc, The Ohio State U (2007)

**Professional Experience:** Associate Professor, University of South Florida. Principal investigator, NSF Research Coordination Network in *Ecoimmunology*. Graduate Director, USF Integrative Biology. Associate Editor, *Proc Roy Soc B*, *Functional Ecology*

**SICB Activities:** Member of DCE, DCPB, and DAB since 2000, Student Paper Judge (DCE, DAB, DCPB since 2005)

**Other Memberships:** Ecological Society of America (since 2004); American Ornithologists' Union (since 2001);

**Research Interests:** Stress-immune interactions in wild animals; the physiology of range expansions; evolutionary ecology of homeostasis and regulatory networks; behavioral epigenetics

**Goals Statement:** The Society for Integrative and Comparative Biology is truly an incubator of new ideas and approaches to biology, as summarized in a recent *Science* article on the inception of this new Division. It has been my privilege to foster the growth and integration of *Ecoimmunology* and *Disease Ecology* into SICB by i) hosting or supporting many past symposia on related topics, ii) delivering the 2009 Bartholomew Award lecture on my own *ecoimmunological* research, and iii) leveraging the infrastructure built via an Research Coordination Network in *Ecoimmunology* (on which I am a PI) towards the new Division. *Ecoimmunology* and *disease ecology* are among the most rapidly growing areas of organismal biology, and both have been increasingly represented at SICB in the past few years. I hope to use my experiences with the RCN and my active knowledge of the area as well as relationships with active researchers in related fields



to foster inter-connections with other SICB divisions and increased membership society-wide. Moreover, I hope to work across societies to enhance the reputation of SICB, such as via interactions with the new Section of Disease Ecology of the Ecological Society of America. Ultimately, my goal is to help SICB become the venue for communicating and discussing discoveries in this exciting, nascent field.

### Candidates for Program Officer

#### *Sarah DuRant*



**Current Position:** Assistant Professor, Department of Zoology, Oklahoma State University

**Education:** B.S. University of South Carolina (2002); M.S. Virginia Tech (2006); Ph.D. Virginia Tech (2011).

**Professional Experience:** Assistant Professor, Oklahoma State University, Stillwater, OK (2013-present). Postdoctoral Research Associate, Tufts University (Advisor: L. Michael Romero), Medford, MA (2011-2013)

**SICB Activities:** Session Co-chair, 2013 Annual Meeting

**Other Memberships:** Society of Integrative and Comparative Biology, American Ornithologists' Union

**Research Interests:** As an ecological physiologist I focus on physiological and organism-level responses of wildlife to various environmental stimuli. My research program focuses on two major lines of inquiry. First, how do parents influence the developmental environment of their young and what are the phenotypic implications for their offspring? Second, how do organisms respond physiologically to biotic and abiotic (e.g., environmental contaminants and disease) factors in their environment and what are the implications of these responses for the individual's ability to survive and reproduce? I combine laboratory and field techniques and use an integrative approach to investigate research questions, uniting concepts from ecological immunology, bioenergetics, stress physiology, and life history theory. In addition, I utilize diverse taxa, including amphibians, reptiles, and birds, choosing systems that are most conducive for investigating my research questions.

**Goals Statement:** My current goals are to better understand individual variation in disease susceptibility, and the role parents play in determining offspring immune responses.

#### *Jeanne M. Fair*



**Current Position:** Regional Science Lead for Cooperative Biological Engagement Program at Defense Threat Reduction Agency

**Education:** University of Northern Colorado B.A. 1989 Zoology; Colorado State University; M.S. 1992 Fishery & Wildlife Biology; University of Missouri-St. Louis Ph.D., 2000 Evolutionary Biology.

**Professional Experience:** Jeanne Fair is a scientist at Los Alamos National Laboratory with a focus in epidemiology and animal disease ecology. Dr. Fair was the lead epidemiologist/analyst for Critical Infrastructure Protection and Decision Support Systems Team for the Department of Homeland Security during 2005-2009 focus on modeling of pandemic influenza and the public health response to the emerging threat. Dr. Fair is the principle investigator for a long-term (18 years) research project on the impacts of contaminants on avian populations, and Editor-in-Chief of the Guidelines for the Use of Wild Birds in Research. In 2013, she served as Program Manager for the Long-term Strategy for Environmental Stewardship and Sustainability at Los Alamos. Currently, she is on assignment with the Cooperative Biological Engagement Program for the Defense Threat Reduction Agency that has the mission of reducing the threat of infectious disease and increasing global health security under the One Health umbrella.

**Other Memberships:** American Ornithological Society, Condor Society, Wilson Ornithology society since 1992. American Microbiology Society, American Association for the Advancement of Science, and Toastmaster's International.

**Research Interests:** Comparative avian biology specializing in immunology, disease, and response to stress, including contaminants in the environment. Development of wild bird immunological techniques for investigating immunocompetence and ecological physiology in birds. Modeling of emerging and zoonotic diseases in animal and human populations. Evolutionary pressures of pathogens (metagenomics) and stress on immune function and relationship to public health. System biology approach to understanding immune function, stress, and the environment with both experimental research and modeling.



**Goals Statement:** My short-term goals include becoming more involved in the Society of Integrative & Comparative Biology. Comparative biology is critical for understanding disease ecology and immunology of animals and humans. I feel the Society of Integrative & Comparative Biology will only continue to increase its role as a leader for rigorous science in meeting our future challenges of infectious diseases, environmental health and rapid environmental changes. One of my primary goals is to support the science of my colleagues and highlight the importance of disease ecology in our future. Professional societies serve and an important mechanism and platform for communicating research to the public and building strong relationships.

### Candidates for Secretary

#### **Caldwell Hahn**



**Current Position:** Research Biologist, USGS-Patuxent Wildlife Research Center and Adjunct Professor, Rutgers University

**Education:** B.A. Wellesley College (1970); M.S.

Tufts University (1973); Ph.D. Rutgers University (1977)

**Professional Experience:** Research Biologist, USGS-Patuxent Wildlife Research Center, Laurel, MD; Adjunct Professor, Rutgers University, New Brunswick, NJ; Post-doctoral Fellow, Harvard University (Advisor: Bert Holldobler), Cambridge, MA; Post-doctoral Fellow, Smithsonian Tropical Research Institute (Advisor: Mary Jane West Eberhard)

**SICB Activities:** SICB member, 2010-present; Student Awards Committee, 2011

**Other Memberships:** AAAS, 1990-present; American Ornithologists' Union, 1977-present; Elected Fellow, 2008, Elected Member, 1996; Symposium Organizer, 2010; Animal Behaviour Society, 1977-present; Student Awards Committee ;1997-1999; 2000-2002; American Institute of Biological Sciences (AIBS), 2005-present; Ecological Society of America, 2003-present; Committee on Student Awards (2003); European Society for Evolutionary Biology,

2003-present; International Society for Behavioral Ecology, 2012-present; Society for Conservation Biology, 1995-present; Policy Committee, Founding member 1996-1997; Major Awards Nominating Committee 2000-2003.

**Research Interests:** Presently my focus is the effects of parasite-rich environments on the evolution of immune responses. My long-time work on avian brood parasites suggested that the group offers unique opportunities for comparative and experimental studies of immunity. My interest was piqued when our artificial infection study using West Nile Virus -- a virulent, non-native pathogen -- revealed that a host-generalist cowbird was significantly more resistant than closely-related, non-parasitic blackbird species to WNV and also to virulent endemic viruses. We have continued to find evidence of evolution of more effective immune responses in brood parasitic species, including: (1) more effective cellular-level innate immune responses, degranulation and oxidative burst; (2) higher concentrations of maternal immune components in eggs; and (3) more diverse gut microbiome. Currently we are investigating the role of immunoglobulin A in the development of immune responses in young cowbirds. Early in my research career, I focused on wetlands ecosystems in both temperate and tropical latitudes, conducted research on breeding and feeding behavior of herons, gulls, and shorebirds, and also developed policy guidelines on conservation of coastal resources and on coastal zone management and development. In mid-career, I contributed at the national level to development of peer review standards at federal agencies, participating in committees at the White House Committee on Environment and Natural Resources (CERN), report preparation for White House Science Advisor (1997), and for NIH in the office of the Director, Division of Research Grants 1997.

**Goals Statement:** My goals as Secretary of the new Division of Ecoimmunology and Disease Ecology would to support all aspects of record-keeping and communication that enhance the growth of the Division and to contribute to publicizing Division activities to other societies which have complementary interests.

#### **Laura D. Mydlarz**

**Current Position:** Associate Professor, Department of Biology, University of Texas-Arlington

**Education:** B.Sc. Florida Atlantic University (1996); M.Sc. Florida Atlantic University (1998); Ph.D. University of California-Santa Barbara (2004)



**Professional experience:** Associate Professor, Department of Biology, UT-Arlington, Arlington, TX (2013-present); Assistant Professor, Department of Biology, UT; Arlington, Arlington, TX (2007-2013); Post-doctoral Associate, Cornell University, Ithaca, NY (2004-2006)



**SICB Activities:** Member, faculty sponsor/mentor for graduate student presentations (>10), Invited Speaker in Ecological Immunology: Recent Advances and Applications for Conservation and Public Health Symposia, Orlando, FL, 2005

**Other Memberships:** International Coral Reef Society, American Society of Limnology and Oceanography, Research Coordination Network – Marine Diseases

**Research Interests:** The focus of the Mydlarz lab is coral disease and immunity. With ongoing climate change and increasing sea surface temperatures, coral reefs have steadily declined due to disease outbreaks. The study of coral disease and how coral fight disease is a growing and emerging field that I have helped shape in the last several years. My lab has contributed to the field by not only developing and successfully applying a suite of species-independent immune assays to corals, but asking original questions and designing novel experiments to answer them. My lab has also contributed to the field of ecological immunity by integrating studies of coral immunity in an ecological framework. This work seeks to understand the variability in immunity between species, populations and coral individuals and how life history and the environment have shaped these differences. I have trained four graduate students, two post-doctoral scholars, over 35 undergraduates in my lab. I have been successful at acquiring extramural funding for my work and sat on several NSF panels. I have given over 15 invited talks and my students and I have participated in 15 national and international conferences, including proposing and chairing the first immunity-focused session at the International Coral Reefs Symposia in Australia in 2012.

**Goals Statement:** My goals for the new SICB Division of Ecoimmunology and Disease Ecology are to unite the many disease and ecoimmunity communities doing relevant research, from marine to terrestrial systems, from invertebrates to vertebrate models. I am excited and motivated to bring ecoimmunity and diseases ecology to the forefront with this division. I will work hard as secretary to promote, organize and disseminate information to the division and its community of scientists and communicate with the Society. I look forward to this next chapter in service to the ecoimmunity and disease ecology community and colleagues around the country.

**Travis E. Wilcoxen**



**Current Position:** Assistant Professor of Biology, Millikin University

**Education:** B.S. Eureka College (2005); Ph.D. University of Memphis (2010)

**Professional Experience:** Assistant Professor, Millikin University, Decatur, IL (2010-present)

**SICB Activities:** Member of Division of Comparative Endocrinology (DCE) and Division of Comparative Physiology and Biochemistry (DCPB) continuously since 2006, 2011 & 2012 DCE Best Student Paper Judge, 2013 DCPB Best Student Paper Judge

**Other Memberships:** International Society for Wildlife Endocrinology (since 2013), American Ornithologists' Union (since 2006), Illinois State Academy of Science (since 2010, Chair of the Zoology Division since 2013), Executive Board Member of the Illinois Raptor Center (since 2013).

**Research Interests:** Supplemental food and immune function in free-living animals; stress and immune function in birds and amphibians; nutrition, disease prevalence, and immune function in rehabilitating birds of prey

**Goals Statement:** The Society for Integrative and Comparative Biology was the first, and has always been the best, scientific meeting in which I have participated. Membership in SICB has facilitated multiple collaborations, opportunities, and friendships. SICB regularly serves as a forum in which nearly all biology



has a home and with the emergence of many new, integrative studies in ecoimmunology and disease ecology, it is time that SICB have a division specifically for those areas of study. I am a strong advocate for undergraduate research and as a faculty member at a university with only undergraduates in biology, I always encourage these students to pursue 'big' science despite attending a small school. Serving as an officer for a division of a large, national scientific organization such as SICB, would provide further evidence to those students that their work truly 'belongs' here. High-quality leadership from a collection of dedicated division officers is critical for any of the divisions to succeed; indeed, this will be even more important for this new division in its infancy. Serving as the first Secretary for the new Division of Ecoimmunology and Disease Ecology would fulfill one of my personal goals of serving the scientific community at the national level. As Secretary, I will make strong leadership contributions and, most importantly, ensure that the activities and proceedings of the division are properly communicated, documented, and protected.

## Ecoimmunology and Disease Ecology By-laws

### Article I. Organization

The name of this division shall be the Division of Ecoimmunology and Disease Ecology (DEDE) of the Society for Integrative and Comparative Biology. It shall be governed in accordance with the Constitution and Bylaws of the Society.

### Article II. Membership

Membership in the Division is open to all classes of members of the SICB. It is acquired by registration with the SICB business office.

### Article III. Purpose

The purpose of the Division shall be to facilitate communication, research, and data sharing among ecoimmunologists and disease ecologists. The division will also promote mentoring and training of students and early career investigators in excellence of research and the fundamentals of societal business.

### Article IV. Officers

Officers of the Division shall be a Chair, a Chair-Elect, Program Officer, Program Officer-Elect, Secretary, and Secretary-Elect. Elections of officers shall be held by either paper or appropriately secure electronic ballots. A brief biography of each candidate shall be made available on the ballot. Unless otherwise stated, the

term of office of all elected officers and appointed representatives shall begin at the end of the second SICB Executive Committee meeting at the Annual Meeting in the year the term is to begin and will end at the adjournment of the second SICB Executive Committee meeting at the Annual Meeting in the year the term is to expire. The Officers shall constitute an Executive Committee of the Division and are responsible for divisional affairs.

### Section 1. Elections

Nominations for all offices shall be prepared by a Nominating Committee appointed by the Chair in consultation with the Divisional Executive Committee. At least two candidates for each office should be named and all candidates must be members in good standing of the Society for Integrative and Comparative Biology. Election of officers shall be held by either appropriately secure electronic ballots or paper ballots. The names of candidates for offices shall be published in advance of a mail ballot, and a brief biography of each candidate shall be made available on the ballot.

### Section 2. Vacancies in Office

In the case when a divisional office is unexpectedly vacated, the following provisions are made: The Chair, in consultation with the Divisional Executive Committee, will appoint someone to serve until elections can be held to fill the position. If the office of Divisional Chair is vacant, the Divisional Executive Committee, in consultation with the SICB President, will appoint someone to be the interim Chair until an election is held.

### Article V. Chair

The Chair shall preside at business meetings of the Division, and shall represent the Division on the Executive Committee of the Society. Each year the Chair shall appoint any committees or representatives to committees as may be desirable to promote affairs of the Division in the Society. The Chair shall serve a term of two years and shall not be eligible for reelection within two years.

### Article VI. Chair-Elect

The Chair-Elect shall assume the duties of the Chair whenever the Chair is unable to act. The Chair-Elect shall serve immediately upon election and automatically be advanced to the Chair when the term of the Chair-Elect's predecessor ends. The Chair Elect will serve a maximum of term of two years before assuming the role of Chair. The Chair-Elect shall serve as a member of the Nominating Committee.



#### **Article VII. Program Officer**

The Program Officer shall arrange programs for meetings of the Division, which shall include coordination of joint or special programs and meetings with the Program Committee of the Society and with the officers or secretaries of other divisions or societies when desirable. The Program Officer will serve for a term of two year. The Program Officer shall be eligible for re-election for only one additional term.

#### **Article VIII. Program Officer-Elect**

The Program Officer Elect shall assist the Program Officer when requested. The Program Officer-Elect shall serve a term of one year and automatically be advanced to Program Officer.

#### **Article IX. Secretary**

The Secretary shall keep divisional records, coordinate the production of the Divisional newsletters, and conduct business affairs in consultation with the Executive Director of the Society. The Secretary will serve a term of two years. The Secretary shall be eligible for re-election for only one additional term.

#### **Article X. Student/Postdoctoral Affairs Committee Representative**

The Chair, acting in consultation with the Divisional Executive Committee, shall suggest a representative to serve on the society-wide Student/Postdoctoral Affairs Committee (SPDAC). Appointment shall be made by the SICB President for a term of up to three years and shall be renewable. The Student/Postdoctoral Affairs Committee representative must be a member in good standing of SICB. The Student/Postdoctoral Affairs Committee representative will serve on the Divisional Executive Committee as a non-voting member.

#### **Article XI. Finances**

Expenses of the Division shall be paid from the treasury of the SICB within limits of the amount allotted for this purpose in the annual budget of the Society, and from grants received for special projects. Grant applications to national foundations are to be prepared in consultation with the president of the SICB.

#### **Article XII. Meetings**

A business meeting of the Division shall be held annually, normally concurrent with meetings of the Society. Notice of this and other meetings shall be sent at least sixty (60) days in advance to all members of the Division.

#### **Article XIII. Awards**

The DEDE Chair will appoint a DEDE member to Chair an Awards Committee, and in consultation with that member, will select two other divisional members to serve on the Award Committee. The Awards Committee shall be responsible for organizing a committee of judges to review the student presentations awards, and review and select candidates for the Robert Lochmiller Award.

##### **Section 1. Best Student Presentation Awards**

Two awards will be made for Best Student Presentation at each Annual Meeting, one for the best oral presentation and one for the best poster presentation. Each awardee will receive a certificate and a monetary prize. Eligibility will include undergraduate students and graduate students who have not yet been awarded the Ph.D., as well as members who have received the Ph.D. within the 12 months prior to the meeting. The work must be original and must have been carried out primarily by the student presenting it. The prize can be awarded only once to a student and each student competing must be a member of the Division of Ecoimmunology and Disease Ecology.

##### **Section 2. Robert Lochmiller Award**

An annual prize may be awarded to a young investigator for distinguished contributions to the fields of ecological immunology and disease ecology. The formal title for this award is "The Robert Lochmiller Young Investigator Award." Eligible candidates are those who are members of the SICB and who have completed their doctorate within the past ten years. Candidates may apply directly or be nominated, but both types of candidates will be evaluated equivalently. Candidates shall submit to the Chair of the Awards Committee a short description of their work, two reprints of their strongest work, and a curriculum vitae; candidates should also have three letters of recommendation forwarded to the Awards Committee Chair. Nominators must arrange for these same materials (except that only two additional letters of recommendation are required) to be submitted to the Awards Committee. The Committee may recommend for approval one candidate to the Chair of the Division. The Chair of the Division may authorize reimbursement of appropriate expenses incurred by the winner in attending the meeting. The Chair of the Division may also authorize a cash prize. The awardee will be presented with a certificate signed by all current Divisional officers.



**Article XV. Annual Report**

The Divisional Chair shall report in writing to the Secretary of the Society for Integrative and Comparative Biology in advance of the annual meeting of the Society. Its official notices and voted actions shall be included in the records of the Society.

**Article XVI. Amendments**

These Bylaws may be changed or amended at any annual meeting by two-thirds vote of those present or by at least two-thirds of the members responding to a mail or electronic ballot, provided that notice has been given to all members sixty (60) days in advance. In either case, it is the responsibility of the Executive Committee of the Division to assure that opportunities for discussion, either verbal or written, occur before a ballot is taken.

