



## Division of Ecology and Evolution

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### DEE Officers & Representatives

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**Cameron Ghalambor**

*Chair-Elect 2017-2019*

**Michael Sears**

*Past Chair 2017-2019*

**Michael Dillon**

*Secretary 2015-2019*

**Michele Nishiguchi**

*Program Officer 2018-2020*

**Christopher Tracy**

*Past Program Officer 2018-2019*

**Ariel Kahrl**

*Student/Postdoc Representative 2017-2020*

### Message from the Chair

Robert Cox, [Chair.DEE@sicb.org](mailto:Chair.DEE@sicb.org)

Hi everyone,

First, thanks for a great meeting in San Francisco! Highlights for the Division of Ecology and Evolution included two sessions of exciting talks and posters competing for the Raymond B. Huey Award for best student presentation, plus the fifth installment of our annual Beer & Brains science mixer for DEE students and faculty at the Barrelhead Brewhouse. Congratulations to this year's Huey Award winners, Alisha Shah (Colorado State University) for best oral presentation and Meredith Miles (Wake Forest University) for best poster. You can learn more about Alisha, Meredith, and their research below. DEE students, it's never too early to begin planning for next year's competition in Tampa! DEE mentors, encourage your students to submit an extended abstract for the Huey Award competition next year!

Second, on behalf of the entire division, a big round of thanks to Chris Tracy for his stellar service as DEE Program Officer over the past few years. Chris has done an amazing job of coordinating the scheduling of the hundreds of talks and posters with DEE affiliations at the past few meetings, while also helping to select and organize many of the excellent symposia that DEE has sponsored, including next year's lineup in Tampa. Please join me in thanking Chris and also in welcoming Michele "Nish" Nishiguchi as the new Program Officer for DEE! Martha Muñoz also joined us this year as the Secretary-Elect for DEE. Welcome, Martha!

On that note, DEE is holding elections for the positions of Chair-Elect and Program Officer-Elect this spring. Information on the two candidates for each position can be found in this newsletter. Please take a moment to check out each candidate and remember to vote when the polls open — we have a large and diverse membership and we would like to see this represented in our elections!

Speaking of the DEE membership, I wanted to pass along a couple of interesting statistics. First, **more than a quarter** of respondents to the 2018 post-meeting survey conducted by SICB indicated DEE as one of the two divisions with which they most identify — a larger percentage than for any of the ten other divisions within the Society! Second, **more than a third** of the student applicants and awardees for the most recent round of SICB Grants in Aid of Research (GIAR) and Fellowships of Graduate Student Travel (FGST) indicated DEE as one of their primary affiliations — substantially more than for any of the ten other divisions in the Society! I think these statistics speak to the importance of DEE as a large, active, diverse, and integrative division.



This brings me to my final point: DEE is uniquely well situated to support exciting symposia that transcend and integrate topics and approaches from other divisions. We are already supporting what promises to be an exciting mix of symposia at the 2019 [meeting in Tampa](#), and now is the time to begin planning for 2020 in Austin. Michele Nishiguchi provides details below, but the basics are simple: (1) think of an exciting topic in ecology and evolution, (2) draft up a diverse “dream team” of potential speakers, (3) run your idea by Michele or another DEE officer, and (4) [submit your proposal](#) by August 24, 2018. For junior investigators, this is a great way to network while impacting your field — plus it will make a lasting and highly citable contribution as a special volume of *Integrative & Comparative Biology*. And remember that DEE officers are always happy to discuss symposium ideas with you. Just drop us a line!

Best, Bob

## Message from the Program Officer

Michele “Nish” Nishiguchi, [DPO.DEE@sicb.org](mailto:DPO.DEE@sicb.org)

The 2018 meeting was the largest ever, exceeding the previous year’s record of over 2500 attendees. One of the exciting contributions the Division of Ecology and Evolution brings to the annual meeting is its support of symposia, and it is time to start thinking about potential symposium topics for upcoming meetings. The [call for symposium proposals](#) for the 2020 Annual Meeting in Austin is now open. DEE is especially keen this year to directly support symposia that fall under the auspices of our Division. I would encourage members to think about forward-looking topics, especially those that address broader impacts criteria for NSF. If you are interested in submitting a proposal, I ask that you submit them early. The deadline for proposals *reaching the society* is **24 August 2018**. I invite anyone who has an idea or topic for a potential symposium to contact me by e-mail for feedback and suggestions ([dpo.dee@sicb.org](mailto:dpo.dee@sicb.org)). A guide to preparing a symposium proposal is available on the SICB Resources page ([www.sicb.org/resources/SICB Symposium Policies and Guidelines Final.pdf](http://www.sicb.org/resources/SICB_Symposium_Policies_and_Guidelines_Final.pdf)). In the meantime, for those of you who already have ideas for a symposium and would like feedback about preparing a proposal, feel free to email myself or Susan Williams ([dpo@sicb.org](mailto:dpo@sicb.org)) for advice. Please attempt to submit preliminary proposals to me by mid-June, so I can offer suggestions to enhance support for the proposals. Proposals that emphasize emerging conceptual and integrative topics of

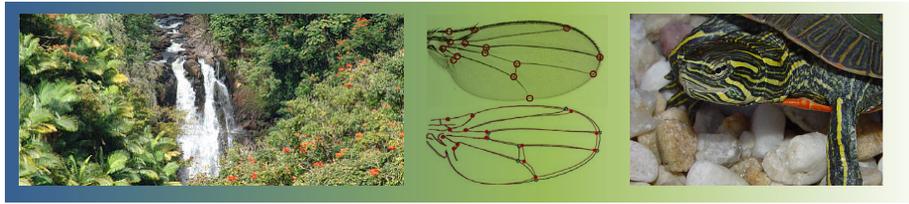
broad interest to the members of SICB as well as our Division in particular are especially encouraged. Junior members of the division should also consider submitting proposals for a symposium or contact other SICB members to organize a topic. DEE has been successful in sponsoring symposia that broaden participation by underrepresented groups. For a perspective on symposia from past meetings (since 2000) check out this link [www.sicb.org/archive/symposia.php](http://www.sicb.org/archive/symposia.php). The 2019 Annual meeting will be in Tampa, FL (3-7 January 2019), so be sure to mark your calendars!

## Ecological Society of America sponsored meeting on the Nagoya Protocol

As the incoming PO for DEE, I was lucky to be able to attend a workshop on the Nagoya protocol for representatives from the major biological science societies last November. This workshop was convened by the Ecological Society of America (ESA) at the behest of (and with support from) NSF. The workshop focused on addressing the implications of the Nagoya Protocol on research at US Universities; it included representatives from numerous professional organizations (mostly in the biological sciences), a senior Program Officer from NSF and the State Department Foreign Affairs Officer who acts as the US focal point for the Convention on Biological Diversity (CBD). I was there representing SICB.

**What is the Nagoya Protocol and how does it affect your research?** The Nagoya Protocol on Access and Benefits Sharing is part of the international treaty known as the Convention on Biological Diversity (CBD). The CBD was opened for signature at the 1992 Earth Summit in Brazil, and entered into force in 1993. The Nagoya Protocol is a Supplementary Agreement to the CBD that was adopted in 2010. In spite of the 17-year gap between the CBD and the Nagoya Protocol, the purpose of the Nagoya Protocol — the fair and equitable sharing of benefits arising from genetic resources — has been one of the goals of the CBD since its inception.

**Aim and implementation of the Nagoya Protocol.** The aim of the Nagoya Protocol is to ensure that the benefits associated with genetic resources, and also with traditional knowledge of biodiversity, are shared fairly and equitably. The Protocol formalizes the idea that countries in which genetic resources and traditional knowledge originate should have the option of retaining some rights over those resources and knowledge. Another underlying principle of the Nagoya Protocol is the



idea that Access and Benefits Sharing is critically important for conservation and for the sustainable use of biodiversity. By providing countries with fair and equitable access to benefits from the genetic resources and traditional knowledge associated with biodiversity, the Protocol provides incentives for both conservation and research.

The Nagoya Protocol has been ratified by nearly 100 countries, including many UN member states and the European Union. The US has not ratified the Protocol, and hence is not a party to it. However, because many countries worldwide are now parties to this treaty, scientists who export biological materials from one country to another need to be cognizant of the country-specific requirements of the protocol, whether or not their home country is a party to it. Penalties for non-compliance in the countries that are parties to the treaty can be stiff. This means that in addition to the research permits, collection permits, and CITES export permits that researchers already obtain, they will also need to be compliant with the requirements of the Nagoya Protocol as implemented in the country where they conduct research.

**Resources for learning more about the Nagoya Protocol.** Researchers will find the following websites very useful in learning more about the Nagoya Protocol.

1. The [Access and Benefit-Sharing Clearing-House](#) (ABSCH) includes valuable general information about the Nagoya Protocol, as well as detailed country-specific information. Under the 'Country Profiles' link, 198 countries are listed. Their status with respect to the Protocol is indicated (party versus non-party), as well as each country's national point of contact for information about the protocol, the national authority that oversees the implementation of the protocol, and a range of other useful information.
2. The [Convention on Biological Diversity](#), the umbrella treaty under which the Nagoya Protocol falls, has a comprehensive website with basic information, news links, updates, and program information.
3. Knowledge about the Nagoya Protocol is highly variable across universities, museums, and captive primate facilities.

Consider contacting the central research administration office at your institution to learn what they know, and what types of support they can offer to researchers. If they are new to the Nagoya Protocol, you can give them the information provided here, and also point them to [this link](#), with information on access and benefit sharing geared towards administrators.

For those of you unfamiliar with the protocol, please use these websites as information regarding who to contact if you plan on working with one of the participating countries. If you have any questions, please contact me for more information.

Nish

## Message from the Secretary

Michael E. Dillon, [secretary.DEE@sicb.org](mailto:secretary.DEE@sicb.org)

We are electing a Program Officer-Elect and a Chair-Elect this year. Please VOTE! You'll see information on candidates included in this newsletter. If you are interested in running for office or know of a great candidate, please contact any of the officers. The more people we can GET INVOLVED in DEE, the better! The time commitment of officers is minimal and being an officer provides a behind-the-scenes look at DEE and SICB, and gives you the opportunity to meet a whole slew of new people.

We continue to try to update the DEE Researcher Database, which is a great way to promote our division and the work of our members. If you've not checked out the database, go [here](#) to get a feel for the strength and breadth of our members and their work. To add your research profile to the DEE page, or to update an existing file, send text files (.doc, .docx or .txt), images (.tif, .jpg, .png, or .gif), or movies (.avi or .mpeg) to [secretary.dee@sicb.org](mailto:secretary.dee@sicb.org).

If you have any ideas for ways to improve DEE, please don't hesitate to contact me ([secretary.dee@sicb.org](mailto:secretary.dee@sicb.org)) so I can bring ideas before the officers and our members. Change comes through the support and motivation of our members.

Michael



## Raymond B. Huey Best Student Presentation Awards

*It's our pleasure to announce the winners of the fifth annual Raymond B. Huey Best Student Presentation Awards:*

### BEST ORAL PRESENTATION:

**Alisha Shah**, Colorado State University. [Do temperature-mediated predator-prey interactions explain temperate and tropical mayfly distributions?](#)

"I explore the role temperature plays in shaping the elevation range distributions of aquatic insects living in temperate and tropical mountain streams. To this end, I have measured a variety of thermal tolerance traits, including thermal breadth, which is defined as the difference between critical thermal maximum and minimum temperatures. However, thermal breadth fails to accurately predict the true distributions of mayflies: their ranges are far narrower than predicted by thermal breadth. We attempted to explain this discrepancy by investigating the synergistic effects of temperature and an important biotic interaction in streams — predation. We predicted that if mayflies were "transplanted" to higher or lower elevation streams, they would experience reduced swimming performance due to the sub-optimal temperatures and become easy prey for stonefly predators. We found that indeed "transplanted" mayflies experienced greater mortality due to predation. Moreover, tropical mayflies experienced mortality due solely to temperature, suggesting that thermal stress amplifies vulnerability to predation in tropical species, and serves as a possible explanation for why mayfly range limits are narrower than predicted by thermal breadth alone."



*Alisha Shah, Huey award winner, collects aquatic insects from a mountain stream.*

### BEST POSTER PRESENTATION:

**Meredith Miles**, Wake Forest University, [Interactions between sexual selection and morphological constraints shape signal design in woodpecker drum displays](#)

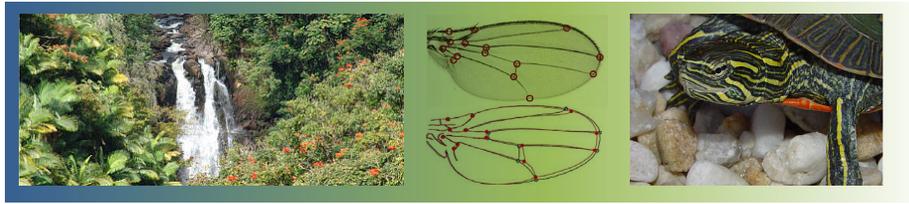
"I study the evolution of complex displays, which are the bizarre behaviors animals use to communicate with one another. In particular, I focus on gesture, or displays produced through body movement. Gestures are highly diverse and nearly ubiquitous in the animal kingdom, and can be used to produce visual, tactile, and acoustic signals. Right now my work uses the evolution of woodpecker drums to better understand how complex displays — which encompass more than one signal element — are shaped by interacting evolutionary drivers. I am currently a second-year PhD student in the Fuxjager Lab at Wake Forest University. For more information about us and recent publications from our lab, see our website ([fuxjagerlab.com](http://fuxjagerlab.com)), and follow our progress on twitter @meredithcmiles and @fuxjagerlab!"



*Meredith Miles (Wake Forest University) studies the evolution of complex displays.*

Congratulations to these outstanding students and to all of the finalists! It is not too early to consider applying for this prestigious award for the 2019 meeting in San Francisco. You can find the application guidelines [here](#).

Minutes from the Division of Ecology and Evolution Business Meeting, 4 January 2018 are available online: [www.sicb.org/divisions/DEE/minutes.php3](http://www.sicb.org/divisions/DEE/minutes.php3).



## Candidates for Elections

It's election time! The Division of Ecology and Evolution is holding elections for Chair-Elect and Program Officer-Elect.

### Candidates for Chair-Elect



#### Fran Bonier

**Current Position:** Assistant Professor, Biology Department, Queen's University (Kingston, Ontario)

**Education:** BS Ethology, Lesley University; MS Zoology, University of Idaho (2001); PhD Zoology, University of Washington (2006)

**Professional Experience:** Postdoctoral Fellow, Virginia Tech (2006-2010); Banting Postdoctoral Fellow, Queen's University (2011-2013)

**SICB Activities:** Member since 2004 (DEE, DCE, DAB, DEDE); Co-organizer for 3 Symposia and Special Sessions (2013, 2014, 2016); Judge for Best Student Presentation (2009, 2011, 2013-2018)

**Other Memberships:** Canadian Society for Ecology and Evolution; American Society of Naturalists

**Research Interests:** My research interests are broad and varied, from ecology to behavior, physiology to evolution. In general, all of this work is organized by one theme: response to challenges. Current research is aimed at understanding the selective pressures that shape adaptive plasticity and the physiological and behavioral mechanisms that allow individuals to integrate and respond to challenges in its environment. Currently, our research includes work on the thermal ecology and life history of *Nicrophorus* burying beetles, intergenerational effects of malaria infection in red-winged blackbirds, and influences of urbanization on birds.

**Statement of Goals:** SICB is my home organization; I presented my first research poster at a SICB meeting in 2005, and have attended almost every year since. We do lots of things well at SICB, and in DEE in particular, and I would like to see us build on our strengths. For example, we should expand the ways that we foster young biologists, creating new opportunities for them and recognizing the contributions they make to our fields. By fostering connections with these young biologists, DEE could

build a loyal and committed core membership. To this end, I would like to see us think creatively about supporting students and postdocs (e.g., with competitions like the Huey Award, travel awards, and research grants) and helping them get the most out of their meeting experience (e.g., with workshops, social events, and social media networking). We could also seek to broaden participation of those who don't regularly attend our meetings by supporting symposia on leading edge research in integrative ecology and evolution that could attract first-time attendees, including more international biologists. Finally, many SICB members, myself included, have faced the challenging task of attending conferences with children or being forced to leave young children behind. DEE, and SICB more broadly, could become a leader in making positive change to support parent attendees, including creating family-friendly opportunities for networking and continuing to support onsite childcare options.



#### Ben Dantzer

**Current Position:** Assistant Professor, Departments of Psychology and Ecology & Evolutionary Biology, University of Michigan

**Education:** BS, Biology with Emphasis in Ecology (2004); MS Biology, University of Louisiana (2006); PhD, Ecology, Evolutionary Biology, & Behavior, Michigan State University (2012)

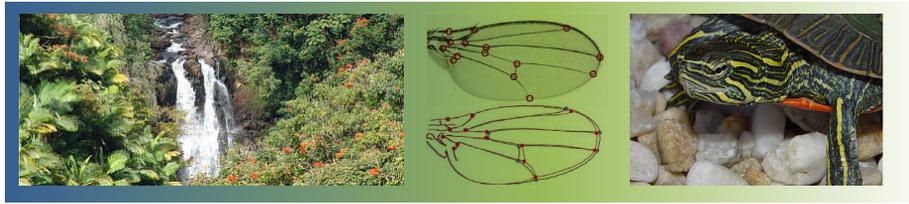
**Professional Experience:** Postdoctoral Research Associate (2012-2014), University of Cambridge

**Professional Experience:** Postdoctoral Research Associate (2012-2014), University of Cambridge

**SICB Activities:** Member since 2007 (DEE, DAB); Organized symposium "The Developmental and Proximate Mechanisms Causing Individual Variation in Cooperative Behavior" for SICB 2017 (sponsored by DEE); Judge for Best Student Poster Competition (DAB); Participant in three SICB symposia; Winner of Best Student Oral Presentation (DAB, 2012)

**Other Memberships:** American Society of Mammalogists, Animal Behavior Society, British Ecological Society, Society for the Study of Evolution

**Research Interests:** My lab studies how and why animals make decisions in an uncertain and changing world and we are driven by a fascination with the causes and consequences of variation in animal physiology, behavior, and life history traits. We



use observational and large-scale approaches to address our research questions in wild mammals (squirrels, meerkats, voles, and mice) and supplement these studies with comparative analyses. Our current research focuses on understanding how developmental stress shapes the characteristics of offspring and whether such plasticity matches offspring to their future environments.

**Statement of Goals:** SICB and its annual conference are characterized by the diversity of biological research. Whether you study biomechanics or comparative endocrinology, nearly all SICB members perform research rooted in ecology and evolution. Those who have attended the other major conferences in ecology and evolution know that SICB offers the unparalleled opportunity to learn about cutting-edge and inter-disciplinary research within the framework of ecology and evolution. This is a unique and enviable position and as Chair-Elect, I would carry on the mission of promoting SICB as the major conference for research in ecology and evolution. Many of us already devoted to SICB and DEE could widen our net by sponsoring symposia that bring in leading ecologists and evolutionary biologists that do not normally attend SICB. As Chair-Elect, my equally-important goals would be to broaden participation and increase our public engagement. For example, DEE could assist symposia organizers to develop lists of potential symposia speakers that are as diverse as the research questions investigated by SICB members and DEE could also work with the Broadening Participation Committee to increase representation in the Huey Best Student Presentation Competition. Finally, many other societies are moving towards a model where conference attendees have the option to participate in pre-conference public engagement activities within the local community. Given the diverse research interests represented within DEE, we can play a leading role in these efforts.

### Candidates for Program Officer-Elect



#### Sarah Diamond

**Current Position:** George B. Mayer Assistant Professor of Urban and Environmental Studies, Department of Biology, Case Western Reserve University

**Education:** BS Biology, Bucknell University (2005); PhD Biology,

University of North Carolina at Chapel Hill with Joel Kingsolver (2010)

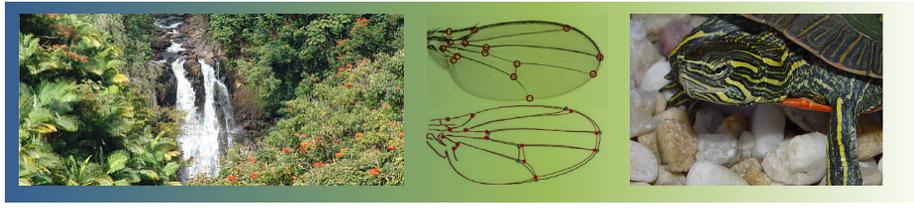
**Professional Experience:** Post-doctoral Research Associate with Rob Dunn (2010-2013) at North Carolina State University, the W.M. Keck Center for Behavioral Biology, and the Southeast Regional Climate Science Center; Assistant Professor at Case Western Reserve University (2014-present)

**SICB Activities:** SICB member and regular conference attendee (beginning in 2007)

**Other Memberships:** Society for the Study of Evolution, Ecological Society of America, Entomological Society of America

**Research Interests:** I am broadly interested in how organisms respond to environmental novelty. Because humans continue to modify the environment, rapidly generating novel conditions at a global scale, much of my current research is aimed at understanding and forecasting responses to global change. I take a multifaceted approach, using a combination of experiments, modeling, synthetic analyses and comparative work, both across latitudinal and elevational gradients in climate and across historical and contemporary climates. As a unifying theme, I focus on physiological performance and tolerance (typically in insects) of key climatic parameters such as temperature.

**Statement of Goals:** Many of us probably have a “go-to” meeting — a meeting where we’re sure to see fantastic, novel science presented; a venue to reunite with friends, colleagues, and collaborators; a place where we can connect our trainees with a diversity of scientists from early career researchers to senior leaders in the field. For me, that meeting is SICB, and in particular the presentations and activities associated with the Division of Ecology and Evolution. My goals as program officer would be to capitalize and build on the activities that have made DEE so successful in the past: 1) showcasing and rewarding great research by early career scientists—for example, through the Raymond B. Huey competition and awards, 2) connecting senior researchers with early career scientists through events like Beer & Brains, and 3) striving to highlight integrative avenues of research within DEE through the development of cross-cutting symposia and workshops. In an effort to increase diversity in the research presented and participation of scientists from under-represented groups, I also aim to advertise the activities of DEE at the SICB meeting broadly on listservs, ecology and evolution blogs, and social media.



**Greg Byrnes**

**Current Position:** Associate Professor of Biology, Siena College

**Education:** BS, University of Houston; PhD University of California, Berkeley

**Professional Experience:** Postdoctoral Fellow (2009-2011), University of Cincinnati, supervised by Bruce Jayne.

Assistant Professor of Biology (2012-2017), Siena College.

**SICB Activities:** Member (DEE, DCB, DVM) and regular conference attendee since 2002.

**Other Memberships:** American Society of Naturalists

**Research Interests:** My broad research interests are in understanding how and why animals move. For many animals, locomotor performance determines whether or not an individual is able to collect enough food, evade predators, migrate to new habitats, or attract mates. How do animals interact with the unpredictable environment surrounding them to accomplish these critical behaviors? I am interested in the physical interaction between animals and their environment, and in how physiology and morphology contribute to performance of

ecologically relevant behaviors. I focus at the level of the whole organism, asking both how animals interact physically with their environment, as well what are the ecological and evolutionary consequences of these variable interactions. I draw on techniques from many fields to answer questions at the interface of locomotor physiology and behavioral ecology.

**Statement of Goals:** SICB is the conference I most often attend and, ever since my first meeting in graduate school, I look forward to attending each year. It's a time to see colleagues and friends and learn about the latest work of our colleagues pushing the boundaries of knowledge. Our main goal should be to ensure that the next generation of students has the opportunity to enjoy all that SICB and DEE have offered us. To this end, work can be done to continue to integrate programming across divisions to increase the diversity and participation of members of both DEE and SICB and attract new students from a wide range of disciplines. DEE is in a unique position to attain this goal as it straddles the interests of many other divisions of the society at large and can be used as a platform to bring programming and symposia of broad interest that can integrate expertise across numerous divisions of SICB, enabling us to push our fields forward and expose future students to the best SICB has to offer.