



CONFERENCE PROGRAM

*53rd Annual Conference
of the Animal Behavior Society*



University of Missouri - Columbia
July 30 - August 3, 2016



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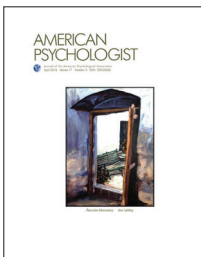
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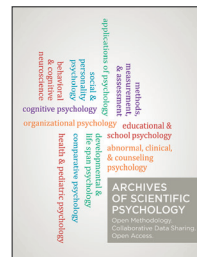


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GENERAL INFORMATION

DATES

The 53rd Annual Animal Behavior Society Conference begins Saturday, July 30th and concludes Wednesday, August 3rd, 2016.

REGISTRATION INFORMATION

The Registration Desk is located in the lobby of the Life Sciences Center (LSC) and will be open during the following hours:

Friday	6:00 pm - 8:00 pm
Saturday	7:30 am - 8:30 pm
Sunday	7:00 am - 6:00 pm
Monday	7:30 am - 6:00 pm
Tuesday	7:30 am - 6:00 pm
Wednesday	7:30 am - 6:00 pm

INSTRUCTIONS TO POSTER PRESENTERS

All posters will be displayed in the Life Sciences Center (floors 1-3). Assigned poster numbers and sessions are listed in this program and in the online conference program (<http://program.abs2016.org>).

- All posters must fit within an area no larger than 42" wide X 40" high and will be hung by push-pins (provided on-site). Please place your poster on the board with the correct number leaving the board number visible.
- Presenters are asked to stand with their poster from 7:00 pm -10:00 pm during the poster session and reception. Poster session details can be found on pages 26-29.

INSTRUCTIONS TO TALK PRESENTERS

Concurrent sessions will follow a strict schedule and will be tightly synchronized. Session topics, room assignments, individual talk times & titles are in the program schedule and indexed in this booklet.

- All rooms will have both a MAC and PC connected to the presentation system.
- PCs will have Windows 7 and MS Office 2013
- MACs will have OS X 11, MS Office 2016 and Keynote (current version)
- Speakers **MAY NOT** connect their own computer (except per below)
- Plenary speakers scheduled in the ABNR Conservation Auditorium may connect their own computer via either HDMI or VGA. Plenary speakers should be sure to bring any necessary adaptors if they wish to use their own computer.
- The speaker presentation upload area is located at the registration desk in the Life Sciences Center Atrium. All talks must be uploaded onto conference computers at least 4 hours before the scheduled presentation time. **Please bring a backup copy of your presentation on USB to the session room.**

PRIVACY STATEMENT

Audio recording of presentations at ABS meetings is permitted only with prior approval of the speaker. Video recording may be allowed only under special circumstances with prior approval of the Program Officers, the Executive Committee and the speaker.

WiFi ACCESS

WiFi access will be available via a public network which has speed and security restrictions. WiFi access information will be distributed at the registration desk.

ONLINE/MOBILE PROGRAM

ABS attendees may access the online conference program using the following link: <http://program.abs2016.org>.

CAMPUS HOUSING CHECK-IN

Check-in for Campus Housing will be at Discovery Hall (906 Virginia Ave, Columbia, MO 65211) between 7:30 am and 10:30 pm. The desk is not open 24 hours. The residence hall will be locked from 11:00 pm – 7:00 am, attendees who have not already checked in will not be able to gain entrance. All checked-in attendees will receive an after-hours access code for exterior doors. **If you experience problems (including the code itself) after the residence hall desk has closed for the night, please call the After-Hours Pager number posted on the exterior door of Discovery Hall.** As a reminder, each residential accommodation, whether single or double, will have a shared bathroom. Keys make your room accessible to the adjoining room, so it is recommended you do not leave valuables in your room. Please note there is a \$15.00 lost key fee.

DINING INFORMATION

CAMPUS CAFES

Catalyst Café! (LSC)
Mon-Fri 8:00 am - 2:00 pm
(closed Sat-Sun)

Starbucks (Memorial Union)
Mon-Fri 7:00 am - 4:00 pm

Infusion Café (Student Center)
Mon-Fri 8:00 am - 3:00 pm

Sunshine Sushi / Kate & Emmas (Student Center)
Mon-Fri 11:00 am - 2:00 pm

Wheatstone Bistro
(Memorial Union)
Mon-Fri 7:00 am - 4:00 pm

MARKETS

Mizzou Market - Central
Student Center
Snacks & Toiletry Items
Mon-Fri 8:00 am - 4:00 pm
(closed Sat-Sun)

Mizzou Market - Hitt Street
Hitt Street (10 min from LSC)
Convenience Store w/ Subway,
Snacks & Toiletry Items
Mon-Fri 9:00 am - 9:00 pm
(closed Sat-Sun)

ROLLINS DINING HALL

Located at the corner of Rollins and Virginia Avenue, across from the Life Science Center. A five minute walk from the Residence Hall.

Breakfast - Included for those staying in the Residence Hall.

Lunch/Dinners - Pre-purchased 7 meal package - (4 lunches, 3 dinners). Use meal card received at conference registration.

Guest Cash/Credit thru the line prices, as available:
Breakfast: \$9.00 | Lunch: \$11.00 | Dinner: \$11.00

Hours

Saturday: 7:00 AM - 9:00 AM

Thursday: 7:00 AM - 9:00 AM

Sunday - Wednesday:

Breakfast: 7:00 AM - 9:00 AM
Lunch: 11:45 AM - 1:45 PM
Dinner: 5:30 PM - 7:30 PM

There is a \$5 charge for any lost meal cards.

ABS MEETING PLACE at night

Come visit the ABS reserved patio each at the Heidelberg each night after the conclusion of the ABS program to socialize with fellow conference attendees.

PARKING

Parking permits for Virginia Avenue Garage (level 4-6) are required Monday-Friday from 8:00 – 5:00 pm. The permit cost is \$12.00 USD per week. Those who pre-ordered parking passes can pick them up at conference check-in and must be displayed during the required time. Limited passes will also be available for sale during conference registration. You are subject to ticketing if this permit is not displayed or park in a non-designated parking lot during restricted days/times. There are metered parking spaces that accept coins around campus if your time on campus will be limited.

WELCOME LETTER

Welcome to the University of Missouri and the 53rd Annual Conference of the Animal Behavior Society!

We have more than 500 participants and an impressively diverse program featuring 324 talks and 149 posters. Information on the meeting including the program and symposia can be found within this booklet and at <https://www.animalbehaviorsociety.org/2016/>.

The conference begins informally on Saturday July 30th with an Animal Behavior outreach fair, and a series of other pre-conference activities and outreach events. These include: a workshop on Teaching, a public symposium on Service Animals, and the Turner Undergraduate Program. At the end of the day on Saturday, there will be an opening welcome reception, followed by the ABS Film Festival. Official presentations begin on Sunday and run through Wednesday. This year we have three keynote speakers, who will kick off each morning (on Sunday, Monday and Tuesday), and six symposia: Comparative Canine Behavior; Frontiers in Animal Communication; Tinbergen's Four Questions and Behavioral Toxicology; Behavioral Genomics in Non-model Systems; the Presidential Symposium (on Breeding Aggregations - Causes and Consequences); and the Allee Symposium for Best Student Paper. On Sunday evening (July 31), Frans de Waal will present a special plenary (Are We Smart Enough to Know How Smart Animals Are?) that also will be open to the general public. The academic program concludes on Wednesday with a plenary talk by ABS President Emilia Martins and our annual ABS awards ceremony. A celebratory banquet will close the 2016 conference, setting the stage for the 54th meeting in June 2017 to be held at the University of Toronto, Scarborough.

Two other important events are the ABS Business Meeting and an ABS Strategic Planning Townhall. These will take place in the afternoon on Monday, August 1. All members are invited and enthusiastically encouraged to attend both of these events to discuss and vote on society changes, resolutions, and to hear about future meetings, the journal, funding for graduate research awards, and other information about the society and the field. There will be a raffle with fabulous prizes for those in attendance! Your participation and votes are important. The Strategic Planning Townhall will discuss future directions for ABS and prioritizing of goals. These goals may include, among other things, providing additional support, including financial, intellectual, and academic to our members. Your input will be critical in all these decisions. From its very beginning, ABS has been a deliberately non-hierarchical society, so please note that ALL members, including undergraduate and graduate students, are encouraged and welcomed to participate in these and all other ABS activities.

Orientation on campus should be manageable and almost all events will be held in the Bond Life Sciences Center (LSC) or adjacent buildings. The keynote talks will be held in the Conservation Auditorium in the Anheuser Natural Resources Building, directly adjacent to the LSC. Symposia and concurrent sessions will be held in the Monsanto Auditorium in the LSC, lecture halls in the Physics Building and in Tucker hall, both being directly adjacent to the LSC. Poster presentations and coffee breaks will be in the LSC. Posters will be viewable throughout the meeting in the Atrium of the LSC. Poster presenters will be at their posters to discuss their work on Monday evening. Posters will include those entered in the Founders and the Genesis groups, along with some from undergraduates who received Charles H. Turner awards to attend the conference.

Many other special events will take place over lunch including ones for NSF Orientation and Undergraduate Orientation, as well as meetings of the Conservation, Latin American Affairs, Certified Applied Animal Behavior, and Diversity Committees. During and/or after dinner evening events include the Film Festival, the public talk by de Waal, the Graduate Student Party, and an informal dinner organized for the newly formed LGBTQ Networking group. Additional activities include the silent auction that benefits ABS programs, a 5-K run, and Acaoke (Academic Karaoke – ABS' side-splitting laughter event!). For all these activities and events, more information can be found further on in this program; please also check out the online schedule, posts during each morning's introduction, and on bulletin boards to see when and where all these special events and others are occurring.

Please note that golf carts will be available to help transport participants who may have mobility issues that prevent walking longer distances. Please let us know at the registration desk if you would like to take advantage of the golf cart transportation.

We hope that you have a wonderful experience this week at ABS 2016. Your research and interactions will make the meeting a memorable experience. Please note that this entire event and its program would not have come together without the hard work of the program committee, SPLtrak, many from ABS, and colleagues from the University of Missouri-Columbia and University of Missouri-St. Louis.

Please enjoy the University of Missouri and the charming town of Columbia, and, of course, the amazing research that will be presented. We are so delighted to have you here!

Warm regards,



Zuleyma Tang-Martinez



Johannes Schul



Mark Hauber



Jonathan Pruitt

MEETING-RELATED AWARDS

THE WARDER CLYDE ALLEE AWARD

The Allee symposium features outstanding graduate student research, with an award for the best paper, and is a highlight of ABS meetings. The session honors Dr. Warder Clyde Allee (1885–1955), an animal behavior researcher who was very influential in the development and direction of animal behavior research in the 20th century. Allee was born in Bloomington, Indiana. He earned his PhD from the University of Chicago (1912), was a faculty member at University of Illinois, University of Oklahoma, University of Chicago (1928-1950), and was Chair of Zoology at the University of Florida (1950-1955). He was elected to the National Academy of Sciences in 1951 and ranks among the leading twentieth century ecologists, especially for his work in behavioral and animal ecology. In the ABS Allee Session, graduate students will present their research to ABS members and talk judges. Any independent graduate student research (including, but not limited to, the doctoral dissertation) is eligible. The work presented may be part of a larger collaborative effort, but students have the principal responsibility for the conceptualization and design of the research, the collection and analysis of the data, and the interpretation of the results. The presenter cannot have completed defense of the doctoral dissertation before the preceding ABS annual meeting. An individual can enter the session only once per lifetime.

ANIMAL BEHAVIOR FOUNDER'S MEMORIAL POSTER AWARD

This award is in honor of the founders of the Animal Behavior Society. It is for outstanding posters presented at the annual meeting. All ABS members are eligible to have their poster considered for this award, and elect to be considered when they submit their abstract. This year the award is named after luminary Peter Marler.

CHARLES H. TURNER AWARD

In 2002, the Animal Behavior Society created the Charles H. Turner Program for undergraduate participation at the annual Society meetings. Charles Turner was the first known African American researcher in animal behavior. He earned his PhD from the University of Chicago in 1907. Among other things, his research showed that insects can hear and exhibit trial-and-error learning. By naming the undergraduate program after him, the ABS Diversity Committee emphasizes its goal of increasing the diversity of its membership by encouraging researchers of all ages, levels, and ethnic groups to participate in the annual meetings. The ABS Diversity committee brings a group of 8-12 undergraduates to the meetings each year, covering all expenses, and providing a full program of events including a pre-meeting workshop and direct mentorship from senior scientists.

GENESIS AWARD FOR UNDERGRADUATE RESEARCH

First presented at the 2000 ABS Annual Meeting, the Genesis Award honors the best undergraduate poster presented at the meeting. This year, undergraduate researchers in the Genesis session present their posters in the first poster session.

ETHEL TOBACH POSTER PAPER AWARD (FOUNDERS' MEMORIAL POSTER PAPER AWARD)

This award is in honor of the founders of the Animal Behavior Society. It is for outstanding posters presented at the annual meeting. All ABS members are eligible to have their poster considered for this award, and elect to be considered when they submit their abstract.

Judges: Melissa Hughes, Gabriel Francescoli, Diana Hews

DIVERSITY FUND STUDENT REGISTRATION AWARD

The Animal Behavior Society is strongly committed to increasing the diversity of attendees at the ABS Annual meeting. A limited number of registration fee bursaries are available to aid attendance by students who will increase the participation of racial minorities under-represented in our field. This includes, but is not limited to: minorities from developing nations, minorities living in developed nations, and individuals of Native American, First Nation/First Peoples, Aboriginal or Maori descent. Preference is given to individuals presenting research results. You must be enrolled in a graduate program at the time of application.

LATIN AMERICAN TRAVEL AWARD

The Latin American Travel Awards are intended to encourage greater participation of Latin American researchers in ABS meetings, by helping to defray the costs of international travel, housing, and/or meals at meetings. These awards are restricted to Latin American graduate students enrolled in programs in Latin American institutions, who will be presenting a talk/poster at the ABS meeting. Priority is given to Ph.D. students who are attending an ABS meeting for the first time and who have not received a Latin American Travel Award in previous years.

GRADUATE STUDENT TRAVEL AWARD

The Graduate Student Travel Grant award is intended to provide financial support for graduate students to attend and present at the annual Animal Behavior Society meeting by helping to defray the costs of travel, housing and/or meals at the meetings.

CAREGIVER TRAVEL GRANT

The Caregiver Travel Grant award is intended to provide financial caregiving support for active ABS members to attend and present at the annual ABS meeting. Funds may be used to aid in caregiving costs that will enable ABS members to attend the annual meeting (e.g., airfare for caregiver, childcare or dependent care costs).

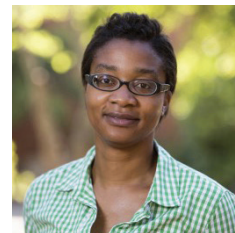
Announcement of Meeting and Career Award winners will be made at the Awards Ceremony immediately following the Presidential plenary talk on Wednesday evening.

PLENARIES & KEYNOTES

SUNDAY, JULY 31ST - 8:30 - 9:30 AM

PARASITES AND BEHAVIOR: OLD IDEAS AND NEW INSIGHTS - Vanessa Ezenwa (University of Georgia)

Parasites can have profound effects on animal behavior. For example, parasites are considered to be a major cost of group-living that imposes constraints on social group size. Larger group sizes favor the transmission of parasites for a variety of reasons, and associations between group size and more intense parasite infections have been documented in many species. However, recent insights from eco-immunology, microbial ecology, and physiological ecology suggest interesting ways in which the parasite-related costs of group-living might be offset under certain circumstances. In this talk, I describe two mechanisms that potentially counterbalance the parasite costs of group-living, and consider the implications for our understanding of the connections between social behavior and parasitism.



SUNDAY, JULY 31ST - 7:30 - 8:30 PM

ARE WE SMART ENOUGH TO KNOW HOW SMART ANIMALS ARE? - Frans de Waal (Emory University)

Frans de Waal is an eminent primatologist and ethologist who is best known for his work on social behavior in chimpanzees and bonobos. de Waal's early research concerned competition, conflict resolution, and deception, inspiring advances in the field of primate cognition and laying the groundwork for studies of cooperation and fairness. His more recent work has focused on the evolution of empathy and morality, designating bonobos as 'the make love – not war' primate. He has also applied his research on primate morality to human societies with an exploration of the role of religion in shaping human interactions. de Waal has authored or edited 14 books, including *Chimpanzee Politics*, *The Age of Empathy*, and *The Bonobo and the Atheist*. His latest book (*Are We Smart Enough to Know How Smart Animals Are?*) will be published by W.W. Norton in April, 2016. He is a member of the National Academy of Sciences and is the C.H. Candler Professor of Primate Behavior at Emory University.



MONDAY, AUGUST 1ST - 8:15 - 9:15 AM

ADAPTATIONS TO BROOD PARASITISM IN HOST GENERALIST AND HOST SPECIALIST COWBIRDS - Juan Carlos Reboreda (University of Buenos Aires)

Obligate avian brood parasites, like cuckoos and cowbirds lay their eggs in the nests of other species (hosts), which provide all parental care to the parasitic offspring. The exploitation of parental care by brood parasites typically entails fitness costs to host parents and these interactions may result in a coevolutionary arms race in which hosts evolve defenses against parasitism that, in turn, select for counterdefenses in parasite populations. In this talk I will describe some adaptations to brood parasitism in the Shiny Cowbird (*Molothrus bonariensis*), an extreme host generalist that uses more than 250 species, and the Screaming Cowbird (*M. rufoaxillaris*), a host specialist that parasitizes almost exclusively one species. I will analyze the prospecting of host nests by female Shiny Cowbirds and discuss their memory abilities for remembering the precise location and nesting stage of multiple host nests within the home range. I will also describe behavioral flexibility of egg pecking behavior by Shiny Cowbird females and begging behavior by Shiny Cowbird chicks depending on brood conditions. Finally, I will show evidence of visual and vocal mimicry between the fledglings of Screaming Cowbirds and those of its primary host.



MONDAY, AUGUST 1ST - 1:30 - 2:20 PM (NEW ABS FELLOW TALK)

COGNITIVE ECOLOGY OF FEAR IN A CHANGING WORLD - Doug Chivers (University of Saskatchewan)

Due to the unforgiving nature of predation, prey animals have evolved an astonishing array of antipredator responses that act to thwart would-be predators. However, various anthropogenic stressors compromise prey risk assessment systems. My talk will explore how ocean acidification, rising sea temperatures, and coral degradation alters prey behaviour and ultimately predation dynamics in coral reef systems.



TUESDAY, AUGUST 2ND - 8:30 - 9:30 AM

PARENTHOOD ON THE BRAIN: NEURAL MECHANISMS OF PIGGYBACK RIDES AND NURSING BEHAVIOR IN POISON FROGS - Lauren O'Connell (Harvard University)

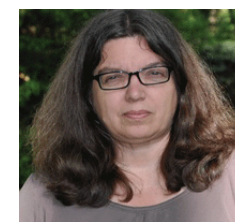
Specialized parental care strategies have evolved independently many times in response to different selective pressures and ecological constraints, but the mechanistic basis of these behavioral phenotypes remains unclear, especially in males. Moreover, separating the mechanisms of pair bonding from those underlying preparations for the onset of parental behavior is difficult, given that pair bonding is coupled with paternal care in most animals. The best strategy for identifying mechanisms governing parental care is to perform a comparative analysis across closely related species that vary in parental care strategies in a manner that is independent of pair-bonding. Poison frogs are the best model clade for this research, as they show diverse parental care strategies amongst closely related species. Using the latest tools in genomics and neuroscience within a comparative context, we have identified core neural mechanisms that promote parental care and sheds light on how behavioral and neural plasticity influence the evolution of diverse reproductive strategies.



WEDNESDAY, AUGUST 3RD - 4:00 - 5:30 PM

HOW HISTORY, PHYSIOLOGY, SOCIAL PARTNERS, AND HABITATS SHAPE ANIMAL BEHAVIOR - Emília Martins (Indiana University- Bloomington) / ABS President

Animal behavior is plastic. We have long known that animals often behave differently depending on their personal histories and immediate context. We are now beginning to appreciate how much these factors impact behavior, and the importance of that flexibility in terms of whether and how animals are able to withstand the challenges of climate change, pollution, and urbanization. In this talk, I share stories from our research about how contexts shape animal behavior, highlighting the importance of long-term evolutionary and geographic contexts, the context of an individual's physiology and other behavior (including multimodal signals), social groups, and personal history. I will then discuss the implications of this behavioral plasticity on future behavior and propose ways in which we can use our knowledge to inform practical decisions.



SYMPOSIA

SUNDAY, JULY 31ST**USING TINBERGEN'S FOUR QUESTIONS TO UNDERSTAND EMERGING CONSERVATION CONCERNS IN BEHAVIORAL TOXICOLOGY SYMPOSIUM**

Organizers: Elizabeth Peterson and John Swaddle

Physics 120

Behavioral toxicology (also known as behavioral teratology) is the study of how anthropogenic pollutants alter behavior, and is an emerging field of global importance to both conservation and public health. The disciplines of behavioral toxicology and teratology have made great strides in understanding how human pollution disrupts behavior and contributes to disease. Although great emphasis in the field of toxicology has been placed on understanding how single pollutants affect individual phenotypes, a comprehensive, interdisciplinary approach that includes animal behavior is essential to address how anthropogenic compounds are risk factors for species and population survival in an increasingly polluted world. This symposium will address issues in behavioral toxicology using the framework of Tinbergen's four questions to understand how pollutants affect behavior in terms of causation and mechanisms, development and ontogeny, function and fitness, as well as evolutionary history and phylogenetic patterns. The goals of this symposium are to: 1) address the issue that behavioral toxicology is relevant and important when assessing the conservation and preservation of populations, 2) provide a framework for the study of the evolution of behaviors, and 3) identify areas of behavioral toxicology that require further attention to facilitate the future of behavioral toxicology as a discipline within both the behavior and toxicology fields. We intend to produce a review article as a result of the presentations and discussion at this symposium.

- John Swaddle, William & Mary.
- Tyrone Hayes, UC Berkeley.
- Frances Champagne, Columbia University.
- Claire Ramos, Colorado State University-Pueblo.
- David Buchwalter, North Carolina State University.
- Jacob Kerby, University of South Dakota.
- Elizabeth Peterson, SUNY-Albany.

SUNDAY, JULY 31ST**COMPARATIVE CANINE BEHAVIOR SYMPOSIUM**

Organizers: Robin Foster and Camille Ward

Tucker 18

The past decade has experienced an explosion of research on domestic dogs, with a doubling in the number of scientific publications on canine behavior. This symposium provides a rare opportunity for researchers studying canine behavior to share their work with one another and with a wider audience of animal behaviorists. At present there is no academic forum for canine behavior research in North America; ABS is an ideal parent organization for that purpose and this symposium could serve as a starting point for such a gathering. This symposium emphasizes a comparative, cross-species approach and highlights studies on the behavior of both domestic dogs and their wild counterparts. This integrative approach furthers the understanding of evolutionary relationships among canine species by addressing both functional and mechanistic causes and illustrating varied research methodologies. Issues related to the evolution, conservation, and welfare of canids will be explored. Importantly, the topic of comparative canine behavior connects ABS members who conduct basic and applied research.

- Clive Wynne, PhD, Arizona State University.
- Monique Udell, PhD, Oregon State University.
- Janice Koler-Matznick, MS, ACAAB, Enikő Kubinyi, PhD, Eötvös Loránd University.
- Kathryn Lord, PhD, Hampshire College.
- Simon Gadbois, PhD, Dalhousie University.
- Anna Kukekova, PhD, University of Illinois.
- Nicole Dorey, PhD, CAAB, University of Florida.
- Sarah Marshall-Pescini, PhD, Wolf Science Center.
- Camille Ward, PhD, CAAB, About Dogs LLC.

MONDAY, AUGUST 1ST**BEHAVIORAL GENOMICS IN NON-MODEL SYSTEMS SYMPOSIUM**

Organizer: David Schulz, Johannes Schul and Zuleyma Tang-Martinez

Monsanto Auditorium

Much work in animal behavior has been comparative; understanding the origins of behavioral diversity and how behavior contributes to the evolution of the diversity of life, have been central questions in animal behavior. Over the last 15 years, much work was done with the understanding that the molecular and genomic tools developed in model organisms would become available for non-model systems in the near future. This time has arrived: among others, next generation sequencing and reduction in costs allowed the application of genomic methods to non-model species. A multitude of studies focusing on the molecular and genetic basis of behavior has recently emerged, spanning a wide taxonomic range as well as many levels of analysis. This symposium aims to highlight this recent work on behavioral genomics. We plan to include diverse study system (e.g. social insects, crustaceans, fish), while focusing on non-model systems. We will span a wide range of analysis-levels, from simple motor behaviors to social behaviors and eusociality. We will also focus on some speakers that have utilized both traditional "model" systems and non-model systems in an integrative fashion in order to bring the strengths of both together. The goal of this symposium to introduce a wide range of animal behaviorists to these exciting new methods and approaches. We want to highlight their feasibility for many studies that historically were not suitable for molecular work. One topic that will be covered in this symposium is the discussion of the best way to incorporate these methods into our research programs. We hope to inspire animal behaviorists to seriously consider genomic and molecular approaches for their future studies of animal behavior.

- Sarah Kocher, Princeton University.
- Kim Hoke, Colorado State University.
- Steven Phelps, University of Texas Austin.
- Christina Grozinger, Penn State University.
- Paul Katz, Georgia State University.
- David Schulz, University of Missouri-Columbia.
- Deborah Gordon, Stanford University.
- Jenny Tung, Duke University.

SYMPOSIA (CONTINUED)

TUESDAY, AUGUST 2ND

ALLEE SYMPOSIUM FOR BEST STUDENT POSTER PAPER

Organizer: Jeff Podos

Monsanto Auditorium

This symposium features outstanding graduate student research, with an award for the best paper, and is a highlight of ABS meetings. The session honors Dr. Warder Clyde Allee (1885–1955), an animal behavior researcher who was very influential in the development and direction of animal behavior research in the 20th century. He was elected to the National Academy of Sciences in 1951 and ranks among the leading twentieth century ecologists, especially for his work in behavioral and animal ecology. In the 2016 ABS Allee Session, students will present their research to ABS members and talk judges.

- Natalia Borrego, University of Miami
- Kenneth J. Chapin, University of California
- Nicholas Dirienzo, University of California, Davis
- Jennifer L. Essler, Wolf Science Center
- Carl N. Keiser, University of Pittsburgh
- Russell A Ligon, Arizona State University
- Megan A. Murphy, University of Missouri
- Karla D. Rivera-Cáceres, University of Miami
- Isaac Schamberg, University of Pennsylvania
- Brent Stoffer, University of Cincinnati

TUESDAY, AUGUST 2ND

NEW FRONTIERS IN ANIMAL COMMUNICATION SYMPOSIUM: IN HONOR OF H. CARL GERHARDT

Organizers: Margaret Ptacek and Felix Breden

Tucker 18

For nearly fifty years, H. Carl Gerhardt has led the field of animal communication through integrative study of signal-receiver coevolution in anurans. This symposium results from Carl's recent retirement, and honors his many insights and influences on the field of animal communication. By including a broad representation of communication modes and highlighting research efforts that span both proximate and ultimate explanations of signal-receiver evolution, the symposium aims to show the direction and focus of future studies in animal communication. The general importance of timing in animal behavior is widely appreciated, but often not explicitly addressed. Furthermore, researchers who do explicitly address temporal variation do so in distinctly different ways. Speakers at this symposium will outline unresolved temporal issues in animal behavior, present ways to more comprehensively quantify the impacts of time on behavior, and evaluate the impact of temporal variation on fields ranging from animal personality to intraindividual variability to social network analysis.

- Andrew Bass, Cornell University.
- Mark Bee, University of Minnesota.
- Felix Breden, Simon Fraser University.
- Reginald Crocroft, University of Missouri-Columbia.
- Molly Cummings, University of Texas-Austin.
- Eileen Hebets, University of Nebraska-Lincoln.
- Georg Klump, Carl von Ossietzky Universität.
- Emily Moriarty Lemmon, Florida State University.
- Jeffrey Podos, University of Massachusetts-Amherst.
- Margaret Ptacek, Clemson University.
- Kerry Shaw, Cornell University.
- Philip Stoddard, Florida International University.

WEDNESDAY, AUGUST 3RD

PAST PRESIDENT'S SYMPOSIUM

Organizer: Regina Macedo

Monsanto Auditorium

Topics will include: cooperative breeding in anis, lek systems in manakins, cooperative breeding in fairy-wrens, evolution of coloniality in spiders, cooperative breeding in marmosets, breeding aggregation in voles, horseshoe crab breeding aggregations, breeding aggregations in grassquits.

- Regina Macedo, Universidade de Brasília.
- Christina Riehl, Princeton University.
- Emily DuVal, Florida State University.
- Mike Webster, Cornell University.
- Jonathan Pruitt, University of California
- Emilia Yamamoto, Universidade Federal do Rio Grande do Norte.
- Nancy Solomon, Miami University.
- Jane Brockmann, University of Florida.

WORKSHOPS

SATURDAY, JULY 30TH | 9:00 AM - 5:00 PM **TURNER PROGRAM WORKSHOP (INVITE ONLY)**

Organizer: Dan Howard

LSC 572

The Charles H. Turner Undergraduate Program, established in 2002, provides to undergraduate participants support for travel to the annual conference of the Animal Behavior Society. Participation in a pre-meeting Turner Program workshop is by invitation only, selection of participants is competitive, and students are encouraged to present research at the conference. The full-day workshop prepares students for the conference and provides advice on: careers in animal behavior, meeting faculty and graduate students at the conference, presenting posters, and identifying and applying to appropriate graduate programs. Each student is assigned a mentor, based on the student's interests, and the program typically supports from 8-12 students per year, depending upon the meeting location. The goal of the Turner program is to attract and retain in the field of animal behavior highly qualified graduate and undergraduate students from groups historically under-represented in the STEM fields.

SATURDAY, JULY 30TH | 8:00 AM - 5:00 PM **TEACHING WORKSHOP**

(8:00 AM light breakfast and coffee will be served, 9:15 AM first session begins)

Organizer: Stan Braude

LSC 171

We invite ABS members to a special workshop that will take place on Saturday, July 30 at University of Missouri Columbia. We will not have invited speakers who talk about teaching. Instead, five master teachers will actually model and teach four different types of classes. This will allow participants to easily incorporate these lessons into their animal behavior courses. This workshop is targeted at graduate students, post-docs and new faculty, but everyone is welcome. Breakfast and lunch will be provided.

Sampling Animal Behavior: Dr. Susan Margulis, Associate Professor in Animal Behavior, Ecology and Conservation, and Biology, Canisius College, will teach a lesson on focal, scan and all-occurrences sampling. Participants will use different sampling methods to collect data from video footage. Analysis and discussion will illustrate the appropriate use of different methods to different research questions.

Teaching with Wikipedia: Dr. Joan Strassmann, Professor of Biology, Washington University. Wikipedia can be a powerful teaching tool. What better way to teach your students the strengths and weaknesses of Wikipedia than having them write for it? The Wikipedia Education Foundation is there to help, even if you don't know how to edit well yourself, there is tons of help out there! This workshop will introduce you to this wonderful resource, including information from a course on behavioral ecology.

Parental Care in the Wild (in the classroom): Dr. Alexandra Basolo, Professor of Biology, University of Nebraska, will teach how to identify behaviors exhibited by parental cichlids. Then we will collect data from video of parents, young and predators in a stream in Belize. Finally, we will learn to summarize the results and we will discuss differences between the parents.

Case-Study Based Module Teaching: Dr. Laura Sirot, Assistant Professor of Biology, The College of Wooster and Dr. Heather Zimbler-DeLorenzo, Associate Professor of Biology, Alfred University. The goal of using case study modules is to allow you to transform your classrooms into active, student-centered learning environments. Modules last two weeks and cover at least 2-3 core concepts that students in Animal Behavior would be expected to learn. By using the C.R.E.A.T.E. (teachcreate.org) method, students use the primary literature to explore the main module question.

This workshop offers a unique opportunity for those looking for some new ideas to incorporate into their animal behavior classes. Join these experts for some exciting hands-on learning opportunities.



EVENTS & MEETINGS

SATURDAY, JULY 30TH - WEDNESDAY, AUGUST 3RD

ABS SILENT AUCTION *(LSC Lobby)*

Organizer: Saethra Fritscher

Bring items to Donate! Bring items from home, pick up items in your travels, from your field sites, or obtain donations from supportive colleagues and organizations. Drop your items at the registration desk! The more items we have, the more likely the auction will be as successful as it was last year! Items that you donate for the auction will be placed at the meeting on tables next to bidding forms, or described if the item is not present. During the meeting, members will visit the tables and bid on items by entering their bid on the bidding form. The auction will continue for several days while members bid against one another. The member with the highest bid at the deadline wins the item and takes it home with them. Funds raised will support Graduate Student Research and Latin American Affairs!

SATURDAY, JULY 30TH

ANIMALS HELPING IN SOCIETY

9:00 AM - 5:00 PM *(Monsanto Auditorium)*

Organizer: ABS Applied Animal Behavior Committee

Hosted by the ABS Applied Animal Behavior Committee and Certified Applied Animal Behaviorists. This event has been approved for CEUs by CCPDT and IAABC.

EXECUTIVE COMMITTEE MEETING - INVITATION ONLY

9:00 AM - 5:00 PM *(Tucker 111)*

OUTREACH FAIR

1:00 PM - 5:00 PM *(ABNR Building - Atrium & Courtyard)*

This year's outreach fair involves over 30 scientists from 14 labs from 10 institutions. Come check out activities and displays that students, postdocs and faculty have designed to engage the public in their research. Listen to insects walk, get up close and personal with reptiles, make your own cricket song, blow dart a 'baboon,' radio-track a mouse, and hear popular songs through the 'ears' of other animals.

OPENING RECEPTION

5:00 PM - 7:00 PM *(LSC Atrium & Foyer)*

Greet old friends, meet new ones, and enjoy some great food and drink. This event is included at no additional cost with your registration.

33RD ANNUAL ABS FILM FESTIVAL

7:00 PM - 10:00 PM *(Tucker 18)*

Organizer: Barbara Clucas

Now in its 33rd year, the ABS Film Festival features outstanding films that portray important concepts in animal behavior research and education. Categories include both amateur (non-commercial) and professional (commercial) films produced in the preceding five years. SEE PAGE 10 FOR ADDITIONAL DETAILS.

SUNDAY, JULY 31ST

ABS CONSERVATION COMMITTEE OPEN LUNCH MEETING

12:15 PM - 1:30 PM *(Rollins Dining Hall)*

NSF LUNCH

12:15 PM - 1:30 PM *(Rollins Dining Hall)*

NSF lunch: Overview and Q & A with program officers.

ABS STRATEGIC PLANNING COMMITTEE MEETING

12:15 PM - 1:30 PM *(Tucker 111)*

LGBT DINNER

6:00 PM - 7:30 PM *(The Heidelberg)*

ABS CONSERVATION COMMITTEE MEETING

6:00 PM - 7:30 PM *(Tucker 111)*

MONDAY, AUGUST 1ST

UNDERGRADUATE LUNCHEON

12:00 PM - 1:30 PM *(Physics 120)*

BUSINESS MEETING

4:45 PM - 5:45 PM *(ABNR Conservation Auditorium)*

ABS STRATEGIC PLANNING TOWNHALL

5:45 PM - 6:45 PM *(ABNR Conservation Auditorium)*

TUESDAY, AUGUST 2ND

CAAB LUNCH MEET & GREET

12:00 PM - 1:30 PM *(LSC 171)*

LATIN AMERICAN LUNCH MEETING

12:00 PM - 1:30 PM *(Rollins Dining Hall)*

AABC BUSINESS MEETING

6:00 PM - 7:00 PM *(Tucker 111)*

STUDENT PARTY IN TOWN

8:00 PM - 10:00 PM *(The Heidelberg)*

WEDNESDAY, AUGUST 3RD

ABS 5K FUN-RUN

6:45 AM - 7:45 AM *(Check at Registration for Location)*

EDUCATION COMMITTEE MEETING

12:00 PM - 1:30 PM *(Rollins Dining Hall)*

BANQUET (TICKET REQUIRED)

7:00 PM - 9:00 PM *(Memorial Union)*

FILM FESTIVAL

2016 ANIMAL BEHAVIOR SOCIETY FILM FESTIVAL – COLUMBIA, MO

Saturday, July 30th

7:00 - 10:00 PM

Location: Tucker 18

NON-COMMERCIAL FILMS

Made by an individual or persons largely associated with animal behavior from a teaching, research, and/or applied perspective, not with the primary goal of earning an income.

Discovering Animal Behavior – Approximate start time 7:05 pm

Directed by: *Alberto Redondo*

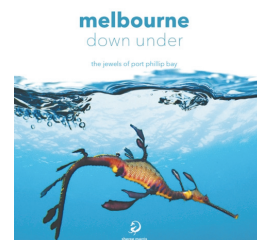
Discovering Animal Behavior is a series of twenty-nine 5-minute film chapters that feature different topics in animal behavior. We will be showing 4 of the chapters including topics such as parent-offspring communication in songbirds and caching behavior in mammals. <http://www.albertoredondo.tv/series/en/3/>



Melbourne Down Under - Approximate start time 7:30 pm

Directed by: *Jarrod Boord*

This film reveals Melbourne's best kept secret - a marine environment that rivals tropical reefs in color and diversity. The film features magical kelp forests, dragons that sparkle like jewels, the mysterious and the downright weird. From fish that fish for other fish, fathers that give birth to the young and creatures that look like anything other than what they are. It's a surprising secret that few people know... until now. <http://www.melbournedownunder.com.au/index.php/project/documentary-and-dvd>



COMMERCIAL FILMS

Made by professional photographers and filmmakers with the express purpose of earning a profit.

The Everglades: A Watery Wilderness - Approximate start time 8:15 pm

Directed by: *Zoltán Török*

Forget that dark swamp picture, the Everglades in fact is a crystal clear shallow river flowing slowly towards the sea. This is an intimate portrait of this strange but troubled watery wilderness through the stories of the animals that call it home. The film has been shot for over two years and the filmmakers captured some never before filmed animal behaviors in this unique national park. <http://wildtales.net/films/>



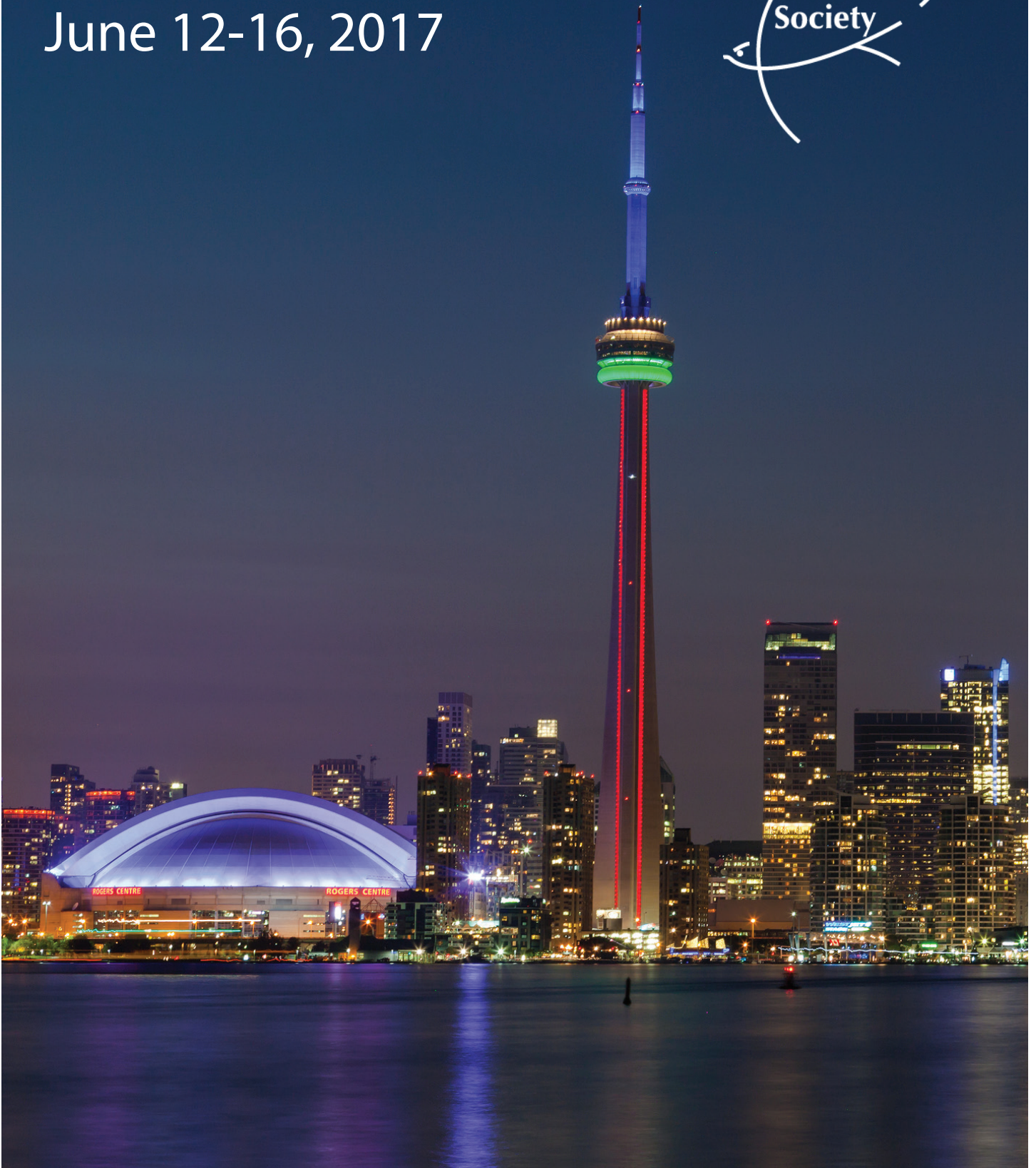
An Unwelcome Success: The European Starling in America – Approximate start time 9:10 pm

Directed by: *Richard Smedley*

This is the story of the ubiquitous European starling and its relationship to humans as well as with its own kind. The film highlights the biology and remarkable intelligence of these birds, including its ability to talk, tool use, language-like chatter and its tenacious urban success. The film also explores the bird's love-hate relationship with humans. Interviews with starling experts, pet owners and authors are featured. <http://www.avianfilms.com/index.htm>



54th Annual Conference Toronto, Canada June 12-16, 2017



PROGRAM SUMMARY

SATURDAY, JULY 30TH

8:00 am - 5:00 pm	Teaching Workshop LSC 171 Reading Room		
9:00 am - 5:00 pm	Turner Workshop by invitation LSC 572	Animals Helping in Society LSC Monsanto Auditorium	Executive Committee Meeting Tucker 111
1:00 pm - 5:00 pm	Outreach Fair ABNR Building - Atrium, Courtyard		
5:00 pm - 7:00 pm	Opening Reception LSC Atrium and Foyer		
7:00 pm - 10:00 pm	ABS Film Festival Tucker 18		

SUNDAY, JULY 31ST

7:00 am - 7:45 am	Morning Yoga Lawn between LSC and Rollins alt location ABNR Building (bring your own towel or yoga mat)				
8:15 am - 8:30 am	Opening Remarks ABNR Conservation Auditorium				
8:30 am - 9:30 am	Plenary: Parasites and Behavior: Old Ideas and New Insights ABNR Conservation Auditorium				
9:30 am - 10:00 am	Morning Snacks LSC Lobby and Atrium				
10:00 am - 12:15 pm	Comparative Canine Behavior Symposium Tucker 18	Sexual Selection & Conflict Monsanto Auditorium	Sexual Selection & Conflict Physics 126	Simulation/Modelling and Education Physics 120	Predation & Foraging Physics 114
12:15 pm - 1:30 pm	Lunch Break On Your Own		ABS Conservation Committee Open Lunch Meeting Rollins Dining Hall 1	NSF Lunch Rollins Dining Hall 2	ABS Strategic Planning Committee Meeting Tucker 111
1:30 pm - 3:30 pm	Comparative Canine Behavior Symposium Tucker 18	Social Behavior + Social Evolution Monsanto Auditorium	Mating/Breeding Systems Physics 126	Using Tinbergen's Four Questions to Understand Emerging Conservation Concerns in Behavioral Toxicology Symposium Physics 120	Communication Physics 114
3:30 pm - 4:00 pm	Afternoon Snacks LSC Lobby and Atrium				
4:00 pm - 6:00 pm	Comparative Canine Behavior Symposium Tucker 18	Mating/Breeding Systems Monsanto Auditorium	Behavioral Plasticity Physics 126	Using Tinbergen's Four Questions to Understand Emerging Conservation Concerns in Behavioral Toxicology Symposium Physics 120	Communication Physics 114
6:00 pm - 7:30 pm	Dinner (on your own)		ABS Conservation Committee Meeting Tucker 111	LGBT Dinner The Heidelberg	
7:30 pm - 8:30 pm	Host's Plenary and Open Public Talk: Are We Smart Enough to Know How Smart Animals Are? Jesse Auditorium				

MONDAY, AUGUST 1ST

7:00 am - 7:45 am	Morning Yoga Lawn between LSC and Rollins alt location ABNR Building (bring your own towel or yoga mat)				
8:15 am - 9:15 am	Plenary: Adaptations to brood parasitism in host generalist and host specialist cowbirds ABNR Conservation Auditorium				
9:15 am - 9:30 am	Founders Poster Presentations ABNR Conservation Auditorium				
9:30 am - 10:00 am	Morning Snacks LSC Lobby and Atrium				
10:00 am - 12:00 pm	Behavioral Genomics in Non-Model Systems Symposium Monsanto Auditorium	Cognition & Learning Physics 126	Ecological Effects Physics 120	Sexual Selection & Conflict Physics 114	Applied Animal Behavior Tucker 18
12:00 pm - 1:30 pm	Lunch Break On Your Own			Undergraduate Luncheon Physics 120	
1:30 pm - 2:30 pm	Keynote: Cognitive Ecology of Fear in a Changing World ABNR Conservation Auditorium				
2:30 pm - 4:30 pm	Behavioral Genomics in Non-Model Systems Symposium Monsanto Auditorium	Social Behavior + Social Evolution Physics 126	Communication Physics 114	Applied Animal Behavior Tucker 18	
4:30 pm - 4:45 pm	Afternoon Snacks LSC Lobby and Atrium				
4:45 pm - 5:45 pm	Business Meeting ABNR Conservation Auditorium				
5:45 pm - 6:45 pm	ABS Strategic Planning Townhall ABNR Conservation Auditorium				
7:30 pm - 10:00 pm	Poster Session & Reception LSC Atrium Floors 1 - 3				

PROGRAM SUMMARY

TUESDAY, AUGUST 2ND

7:00 am - 7:45 am	Morning Yoga Lawn between LSC and Rollins alt location ABNR Building (bring your own towel or yoga mat)			
8:15 am - 8:30 am	Morning Business ABNR Conservation Auditorium			
8:30 am - 9:30 am	Plenary: Parenthood on the brain: Neural Mechanisms of Piggyback rides and nursing behavior in poison frogs ABNR Conservation Auditorium			
9:30 am - 10:00 am	Morning Snacks LSC Lobby and Atrium			
10:00 am - 12:15 pm	Allee Symposium Monsanto Auditorium	New Frontiers in Animal Communication Symposium Tucker 18	Cognition & Learning Physics 126	Predation & Foraging Physics 114
12:00 pm - 1:30 pm	Lunch on your own On Your Own		Latin American Lunch Meeting Rollins Dining Hall 1	CAAB Lunch Meet & Greet LSC 171 Reading Room
1:30 pm - 3:30 pm	Allee Symposium Monsanto Auditorium	New Frontiers in Animal Communication Symposium Tucker 18	Cognition & Learning Physics 126	Behavioral Genetics & Genomics Physics 114
3:30 pm - 4:00 pm	Afternoon Snacks LSC Lobby and Atrium			
4:00 pm - 5:00 pm	Allee Symposium Monsanto Auditorium	New Frontiers in Animal Communication Symposium Tucker 18	Neuro/Endocrine and Physiological Mechanisms Physics 126	Parental Care Physics 114
5:00 pm - 6:00 pm				NEW TO ABS: Public Affairs Workshop "Building personal bridges: connecting your science to your communities" Physics 120
6:00 pm - 7:00 pm	AABC Business Meeting Tucker 111			
8:00 pm - 10:00 pm	Student Party in Town The Heidelberg			

WEDNESDAY, AUGUST 3RD

6:45 am - 7:45 am	ABS 5K Fun-Run TBD			
7:00 am - 7:45 am	Morning Yoga Lawn between LSC and Rollins alt location ABNR Building (bring your own towel or yoga mat)			
8:00 am - 8:15 am	Morning Business Monsanto Auditorium			
8:15 am - 9:30 am	Past-President's Symposium Monsanto Auditorium	Behavioral Plasticity Physics 126	Ecological Effects Physics 114	Predation & Foraging Tucker 18
9:30 am - 10:00 am	Morning Snacks LSC Lobby and Atrium			
10:00 am - 12:00 pm	Past-President's Symposium Monsanto Auditorium	Conservation Physics 126	Social Behavior + Social Evolution Physics 114	Communication Tucker 18
12:00 pm - 1:30 pm	Lunch Break On Your Own			Education Committee Meeting Rollins Dining Hall 1
1:30 pm - 3:00 pm	Past-President's Symposium Monsanto Auditorium	Behavioral Plasticity Physics 126	Sexual Selection & Conflict Physics 114	Communication Tucker 18
3:00 pm - 3:30 pm	Walk to Downtown Columbia/Missouri Theater			
3:30 pm - 4:00 pm	Afternoon Snacks Downtown Columbia/Missouri Theater			
4:00 pm - 5:30 pm	Award Presentations and Presidential Plenary: Context matters: How history, physiology, social partners, and habitats shape animal behavior Downtown Columbia/Missouri Theater			
7:00 pm - 9:00 pm	Closing Banquet (ticket required) Memorial Union			

Time	LSC 171 Reading Room
8:00 am - 5:00 pm	Teaching Workshop
8:00	Light Breakfast & Coffee
9:15	"Candid Camera": Using Video to Teach Observational Sampling and Reliability. S. Margulis - <i>Canisius College</i>
10:45	Break
11:00	Coordinated Biparental Care Under Predation in the Convict Cichlid, <i>Archocentrus nigrofasciatus</i> . A. Basolo - <i>University of Nebraska</i>
12:30	Lunch
1:15	Teaching With Wikipedia. J. Strassmann - <i>Washington University in St. Louis</i>
2:45	Break
3:00	Case-Study Based Module Teaching. L. Siro(1), H. Zimmler-DeLorenzo(2) - (1) <i>The College of Wooster</i> , (2) <i>Alfred University</i>
4:30	Wrap-Up Discussion

Time	LSC 572	Tucker 111	LSC Monsanto Auditorium
9:00 am - 5:00 pm	Turner Workshop by Invitation	Executive Committee Meeting	Public Day: Service Animals: Perspectives from Animal Behavior Professionals
9:00			Welcome
9:05			Selection and Retention of Therapy Horses. S. McDonnell, PhD, CAAB, R. Foster, PhD, CAAB
10:00			Break
10:30			Humans and Animals: Wellness Benefits for Both Ends of the Lead. R. Johnson, PhD, RN, FA
12:00			Lunch
1:30			The Science of Sniffer Dogs. S. Gadois, PhD
2:15			Stress and Well-being in Working Dogs: Principles and Evidence. J. Ha, PhD, CAAB
3:00			Break
3:15			Using "Helper Dogs" to rehabilitate Canine Victims of Animal Cruelty. K. Collins, MS, ACAAB
4:00			Round Table Discussion

Time	ABNR Building - Atrium, Courtyard
1:00 pm - 5:00 pm	Outreach Fair

Time	LSC Atrium and Foyer
5:00 pm - 7:00 pm	Opening Reception

Time	Tucker 18
7:00 pm - 10:00 pm	ABS Film Festival

Time	Morning Yoga	Lawns between LSC and Rollins - alt location ABNR Building (bring your own towel or yoga mat)	ABNR Conservation Auditorium	ABNR Conservation Auditorium	LSC Lobby and Atrium	Physics 126	Physics 120	Physics 114
7:00 am - 7:45 am								
8:15 am - 8:30 am								
8:30 am - 9:30 am								
9:30 am - 10:00 am								
10:00 am - 12:15 pm								
10:00	Tucker 18 Comparative Canine Behavior Symposium Moderators: Robin Foster & Camille Ward	Monsanto Auditorium Sexual Selection & Conflict Moderator: Andrea S Grunst	Sexual Selection & Conflict Moderator: Andrea S Grunst	Sexual Selection & Conflict Moderator: Andrea S Grunst	Sexual Selection & Conflict Moderator: Andrea S Grunst	Sexual Selection & Conflict Moderator: Andrea S Grunst	Simulation/Modeling and Education Moderator: Jennifer Mather	Predation & Foraging Moderator: Marina Donaldson-Matasci
10:15		Disruptive selection on plumage coloration across genetically determined morphs of the white-throated sparrow. A. Grunst(1), M. Grunst(1), N. Rathbun(1), J. Hubbard(2), R. Saffran(2), R. Conser(1), E. Tuttle(1) - (1)Indiana State University, (2)University of Colorado	Disruptive selection on plumage coloration across genetically determined morphs of the white-throated sparrow. A. Grunst(1), M. Grunst(1), N. Rathbun(1), J. Hubbard(2), R. Saffran(2), R. Conser(1), E. Tuttle(1) - (1)Indiana State University, (2)University of Colorado	Boys (and girls) of summer: Seasonal variation in sexually dimorphic weaponry. M. Hughes, W. Heuring - College of Charleston	Boys (and girls) of summer: Seasonal variation in sexually dimorphic weaponry. M. Hughes, W. Heuring - College of Charleston	An ethology of octopus movements. J. Mather(1), J. Alupay(2), K. Iskarous(2) - (1)University of Lethbridge, (2)University of Southern California, (3)University of Southern California	Use of Hyperspectral Imaging to Assess Cryptic Color Matching in <i>Sargassum</i> Associated Crabs. B. Russell(1), H. Dierssen(1,2) - (1)University of Connecticut, Dept of Marine Sciences, (2)University of Connecticut, Dept of Geography	
10:30		Female preference functions drive inter-population divergence in signals: call diversity in a bushcricket. F. Barbosa(1), D. Rebar(2), M. Greenfield(1) - (1)Institut de Recherche sur la Biologie de l'Insecte (IRBI), Tours, France UMR 7261, Faculté des Sciences et Techniques Avenue Morige, Parc Grandmont, 37200, (2)Department of Zoology, University of Cambridge, Downing Street, CB2 3EJ	Female preference functions drive inter-population divergence in signals: call diversity in a bushcricket. F. Barbosa(1), D. Rebar(2), M. Greenfield(1) - (1)Institut de Recherche sur la Biologie de l'Insecte (IRBI), Tours, France UMR 7261, Faculté des Sciences et Techniques Avenue Morige, Parc Grandmont, 37200, (2)Department of Zoology, University of Cambridge, Downing Street, CB2 3EJ	Exposure to male calling song accelerates shift from dispersal to reproduction in female sand crickets. L. Contoy, D. Roff - University of California - Riverside	Exposure to male calling song accelerates shift from dispersal to reproduction in female sand crickets. L. Contoy, D. Roff - University of California - Riverside	Defining and Analyzing Markov Models. A. Perry(1), D. Harris(2), R. McElreath(3), G. Patricelli(1) - (1)University of California, (2)University of Florida, (3)Max Planck Institute for Evolutionary Anthropology	Costs of exploration and selection for complex signals: an experiment with Bumblebees. D. Kikuchi, A. Dornhaus - University of Arizona	
10:30		FEMALE PREFERENCE VARIATION FOR MALE GENITALIA SIZE IS BASED ON MALE REPRODUCTIVE TACTICS. A. Hernandez-Jimenez, O. Rios-Cardenas - Instituto de Ecología A.C	FEMALE PREFERENCE VARIATION FOR MALE GENITALIA SIZE IS BASED ON MALE REPRODUCTIVE TACTICS. A. Hernandez-Jimenez, O. Rios-Cardenas - Instituto de Ecología A.C	Effects of infection on male multimodal sexual signaling and female preference in a wolf spider. R. Gilbert, G. Uetz - University of Cincinnati	Effects of infection on male multimodal sexual signaling and female preference in a wolf spider. R. Gilbert, G. Uetz - University of Cincinnati	Covariation between the Behavioral and Physiological Components of Transmission Forester, M. Craft - University of Minnesota	Despite Lower Levels of Neophobia, Black-Billed Magpies Lose Resources to Nearby American Crows. R. Esposito, D. Povinelli - University of Louisiana at Lafayette	
10:45		Making the best of a bad situation: males that lose their weapon grow larger testes. P. Joseph, C. Miller - University of Florida	Making the best of a bad situation: males that lose their weapon grow larger testes. P. Joseph, C. Miller - University of Florida	Investigating the complex relationship between female state and male courtship in a wolf spider. T. Meyer, G. Uetz - University of Cincinnati	Investigating the complex relationship between female state and male courtship in a wolf spider. T. Meyer, G. Uetz - University of Cincinnati	Raccoon Contact Networks and Rabies Transmission Dynamics. M. Craft(1), J. Reynolds(1), B. Hirsch(2), S. Gehrt(3) - (1)University of Minnesota, (2)James Cook University, (3)The Ohio State University	Collateral damage: The effects of signaling heterospecific neighbors on the risks of parasitism and predation. P. Trillo(1,2), X. Bernal(2,3), M. Caldwell(1,2), W. Halfwerk(2,4), M. Wessel(2,5), R. Page(2) - (1)Gettysburg College, (2)Smithsonian Tropical Research Institute, (3)Purdue University, (4)Virginia University, (5)Butler University	
11:00		Male driven behavioral isolation and color pattern divergence in darters. R. Moran, R. Fuller - University of Illinois	Male driven behavioral isolation and color pattern divergence in darters. R. Moran, R. Fuller - University of Illinois	Manakins in Atlantic Forest: a neglected lekking species. L. Manica(1), P. Ribeiro(1), L. Schaefer(1), A. Guaraldo(1), R. Macedo(2) - (1)Universidade Federal do Paraná, (2)Universidade de Brasília	Manakins in Atlantic Forest: a neglected lekking species. L. Manica(1), P. Ribeiro(1), L. Schaefer(1), A. Guaraldo(1), R. Macedo(2) - (1)Universidade Federal do Paraná, (2)Universidade de Brasília	Re-examining models of fish schooling: using an object-oriented approach to gain new insights. S. Viscido, A. Kennedy, S. Shrestha - Winston-Salem State University	Eavesdropping on the alarm cues of heterospecific fishes by Rainbow Darters. K. Anderson, A. Mathis - Missouri State University	
11:15		Parasitism and ornamentation: a within-individual study in the common yellowthroat. A. Henschen, L. Whittingham, P. Dunn - University of Wisconsin - Milwaukee	Parasitism and ornamentation: a within-individual study in the common yellowthroat. A. Henschen, L. Whittingham, P. Dunn - University of Wisconsin - Milwaukee	Multifaceted selection on song in the polymorphic white-throated sparrow. M. Grunst(1), A. Grunst(1), V. Formica(2), R. Gonsler(1), E. Tuttle(1) - (1)Indiana State University, (2)Swarthmore College	Multifaceted selection on song in the polymorphic white-throated sparrow. M. Grunst(1), A. Grunst(1), V. Formica(2), R. Gonsler(1), E. Tuttle(1) - (1)Indiana State University, (2)Swarthmore College	You Can't Get There From Here: Female Trait Evolution Under Polygyny When Mate Quality Varies. C. Fitzpatrick(1), M. Servadeo(2) - (1)Duke University, (2)University of North Carolina Chapel Hill	How honey bees allocate foraging effort across natural floral resources. M. Donaldson-Matasci(1), C. Burgess(1), T. Finley(2) - (1)Harvey Mudd College, (2)Pomona College	
11:30		Natural <i>Canis familiaris</i> Behavior? J. Koler-Matznick - The New Guinea Singing Dog Conservation Society	Natural <i>Canis familiaris</i> Behavior? J. Koler-Matznick - The New Guinea Singing Dog Conservation Society	The bizarre world of mating in daddy longlegs: a comparative approach to studying evolutionary diversification. K. Fowler-Finn - Saint Louis University	The bizarre world of mating in daddy longlegs: a comparative approach to studying evolutionary diversification. K. Fowler-Finn - Saint Louis University	Broadening the voice of science: promoting scientific communication in the undergraduate classroom. L. Cirino(1), Z. Embergs(1), P. Joseph(1), P. Allen(1), D. Lopatto(2), C. Miller(1) - (1)University of Florida, (2)Grinnell College	Subtle discrimination of predation threat through karimones by aquatic <i>Elmia</i> snails. J. Niedzwiecki, S. Kadakia, T. Mills, K. Sullinger - Belmont University	
11:45		Positive assortative mating induced by developmental lead (pb ²⁺) exposure. E. Peterson(1), R. Yukilevich(2), J. Kehlbeck(2), K. LaRue(3), K. Ferraiolo(1), B. Possidente(4), G. Lnenicka(1) - (1)University at Albany-State University of New York, (2)Union College, (3)Princeton University, (4)Skidmore College	Positive assortative mating induced by developmental lead (pb ²⁺) exposure. E. Peterson(1), R. Yukilevich(2), J. Kehlbeck(2), K. LaRue(3), K. Ferraiolo(1), B. Possidente(4), G. Lnenicka(1) - (1)University at Albany-State University of New York, (2)Union College, (3)Princeton University, (4)Skidmore College	What makes a multimodal signal attractive? A preference function approach. K. Ronald(1), D. White(2), J. Lucas(1), E. Fernandez-Juricic(1) - (1)Purdue University, (2)Wilfrid Laurier University	What makes a multimodal signal attractive? A preference function approach. K. Ronald(1), D. White(2), J. Lucas(1), E. Fernandez-Juricic(1) - (1)Purdue University, (2)Wilfrid Laurier University	Taxonomic Representation in <i>Animal Behaviour</i> : Tracking Research Biases & Trends. M. Rosenthal, M. Gerler, A. Hamilton, M. Andrade - University of Toronto-Scarborough	Avian foraging behavior and prey selection: Untangling critical links. J. Jedlicka - Missouri Western State University	
12:00				Disruptive selection on growth rates across genetically influenced alternative reproductive tactics. M. Morris(1), R. Friebergs(1), O. Rios-Cardenas(2), M. Liotta(1), J. Abbott(3) - (1)Ohio University, (2)Instituto de Ecologia, (3)Lund University	Disruptive selection on growth rates across genetically influenced alternative reproductive tactics. M. Morris(1), R. Friebergs(1), O. Rios-Cardenas(2), M. Liotta(1), J. Abbott(3) - (1)Ohio University, (2)Instituto de Ecologia, (3)Lund University	Using animal behavior to teach critical skills to freshman students. K. Thorington, A. Lenzo, S. Viscido - Winston-Salem State University	The evolution of learned predator recognition in threespine stickleback fish. M. Wund - The College of New Jersey	

Time	Rollins Dining Hall 1	Rollins Dining Hall 2	Tucker 111	On Your Own	
12:15 pm - 1:30 pm	ABS Conservation Committee Open Lunch Meeting	NSF Lunch	ABS Strategic Planning Committee Meeting	Lunch on your own	
Time	Physics 120	Tucker 18	Monsanto Auditorium	Physics 114	
1:30 pm - 3:30 pm	<p>Using Tinbergen's Four Questions to Understand Emerging Conservation Concerns in Behavioral Toxicology Moderators: Elizabeth Peterson & John Swaddle</p> <p>Behavioral ecotoxicology: how studying environmental toxins can enrich our understanding of behavior. J. Swaddle - College of William & Mary</p> <p>What is the significance of socialization in wolves. E. K. Ujvary (1), M. Gasi (2), I. Topal (3), D. Ujfalussy (1), A. Miklósi (1,2), (1)Department of Ecology, Eötvös Loránd University; (2) MTA-ELI, Comparative Ethology, Research Group; (3) Institute of Cognitive Neuroscience and Psychology, RCHS, Hungarian Academy of Sciences</p>	<p>Comparative Canine Behavior Symposium Moderators: Robin Foster & Camille Waid</p> <p>What is the significance of socialization in wolves. E. K. Ujvary (1), M. Gasi (2), I. Topal (3), D. Ujfalussy (1), A. Miklósi (1,2), (1)Department of Ecology, Eötvös Loránd University; (2) MTA-ELI, Comparative Ethology, Research Group; (3) Institute of Cognitive Neuroscience and Psychology, RCHS, Hungarian Academy of Sciences</p>	<p>Social Behavior + Social Evolution Moderator: Elizabeth Kleinsch</p> <p>Social effects on the gut microbiome differ by sex and age in wild baboons. I. Gierleisen (1), J. Terven (1), J. Altmann (2), S. Alberts (3), J. Tung (3), E. Archie (1), (1)University of Notre Dame; (2)Princeton University; (3)Duke University</p> <p>The role of social behavior in shaping gut microbiome composition and diversity in Greatorex. A. Williams (1), S. Song (2,3), V. Knight (3,4), V. E. Univ (1,5) of Georgia; (2)Department of Ecology and Evolutionary Biology, University of Colorado, Boulder; (3)Department of Biology, University of California, San Diego; (4)Department of Computer Science and Engineering, University of California, San Diego; (5)Department of Infectious Diseases, College of Veterinary Medicine, University of Georgia</p>	<p>Mating/Breeding Systems Moderator: Jennifer A. Hamel</p> <p>Does parental effort correlate with reproductive success in a joint-nesting cuckoo? Diligent fathers do best. Robert (1), J. Caldwell (2), Quinn (1), (1)McMaster University; (2)McGill University</p> <p>You can tell by the way I use my mark: Use of male substrate-pile pheromone in female mate choice. L. Whitman, B. King - Northern Illinois University</p>	<p>Communication Moderator: Peggy S. M. Hill</p> <p>The growth of biotremological thinking - a proposal for a common framework for new research terminology. P. Hill (1), A. Wessell (2), (1)University of Tulsa; (2) Museum für Naturkunde, Leibniz Institute of Humanoid-University, Berlin</p> <p>From Bark to Jungle: Environmental Vocalization Adaptation: Brown (1), P. Schelle (2), (1)Browning Biotech; (2)University of Cincinnati</p>
1:45	<p>Behavioral effects of environmental contaminants on individual fitness. C. Varian-Ramos - Colorado State University - Pueblo</p>	<p>Sensory Development and Socialization in Wolves (<i>Canis lupus</i>) and Dogs (<i>Canis familiaris</i>). K. Lord - Hampshire College</p>	<p>Social Learning in <i>Drosophila melanogaster</i>: Interaction Network Dynamics Inform Information Transfer. E. Kirsch (1), C. Pasquarella (2,3), C. Sauer (2,3), F. Mery (4), (1)Centre for Ultrasonic Engineering, University of Strathclyde; (2)Department of Ecology, Physiology and Ethology, Centre National de la Recherche Scientifique; (3)Institut pluridisciplinaire Hubert Curie; (4)Université de Strasbourg; (4)Evolution, Genomes and Phenotypes, et Ecologie, Centre National de la Recherche Scientifique</p>	<p>How Do Call Meanings and Responses Shift with a Receiver's Social Role? Playbacks with Plains Zebra. A. Gersick, D. Rubenstein - Princeton University</p>	
2:00	<p>Demasculinization and feminization of reproductive behavior by the endocrine disruptor atrazine. T. Hayes, M. Nguyen - University of California</p>	<p>Developing an Automated Telemetry System to Track the Private Lives of Prairie Voles G. Wallace (1), R. Sheely (1), M. Corinshaw (1), D. Taylor (2), S. Phelps (1) - (1)The University of Texas at Austin</p>	<p>Long-Term Reproductive Success of Mountain Bluebirds in Colorado and the Role of the Microclimate. L. Temple - Colorado Mesa University</p>	<p>Spawning behavior and early life history of captive Sicklefin Chub, <i>Macrhybopsis</i> J. Albers, M. Wildhaber - U.S.G.S. Columbia Environmental Research Center</p>	
2:15	<p>Epigenetic Impact of Prenatal Exposures on Developmental Trajectories. F. Champagne - Columbia University</p>	<p>Complex behaviours without cognitive control? Food caching sequences in red foxes, coyotes and wolves. S. Gauthois - Dalhousie University</p>	<p>Spawning behavior and early life history of captive Sicklefin Chub, <i>Macrhybopsis</i> J. Albers, M. Wildhaber - U.S.G.S. Columbia Environmental Research Center</p>	<p>Selective attention in call overlap avoidance in Green Treefrogs. R. Gramminger, G. Hobeil, D. Neelon - UW-Milwaukee</p>	
2:30	<p>Behavioral effects of environmental contaminants on individual fitness. C. Varian-Ramos - Colorado State University - Pueblo</p>	<p>Genomics of friendly behavior in silver fox (<i>Vulpes vulpes</i>). A. Kukekova (1), Johnson (1), G. Zhang (2,3), A. Vladimirova (4), A. Kharlamova (4), L. Trut (4), (1)University of Illinois at Urbana-Champaign; (2)University of Copenhagen; (3)BCI-Sherzhen; (4)Institute of Cytology and Genetics of the Russian Academy of Sciences</p>	<p>Reproductive state and sexual history shape the vaginal microbiome in wild baboons E. Miller (1), J. Livermore (1), S. Alberts (2,4), J. Tung (2,3,4,5), E. Archie (1,2), (1)Department of Biological Sciences, University of Notre Dame; (2)Institute of Primate Research, National Museums of Kenya; (3)Department of Evolutionary Anthropology, Duke University; (4)Duke Population Research Institute, Duke University; (5)Department of Biology, Duke University</p>	<p>Singing in the city: Investigating the mechanisms of how birds adjust their songs to urban environments. E. Denyer (1), R. Danner (2,3), J. Danner (1), G. Derryberry (4), J. Phillips (1), K. Gentry (2), D. Luther (2), (1) Tulane University; (2)George Mason University; (3)University of North Carolina Wilmington; (4)LSU Museum of Natural Science</p>	
2:45	<p>Behavioral effects of environmental contaminants on individual fitness. C. Varian-Ramos - Colorado State University - Pueblo</p>	<p>Genomics of friendly behavior in silver fox (<i>Vulpes vulpes</i>). A. Kukekova (1), Johnson (1), G. Zhang (2,3), A. Vladimirova (4), A. Kharlamova (4), L. Trut (4), (1)University of Illinois at Urbana-Champaign; (2)University of Copenhagen; (3)BCI-Sherzhen; (4)Institute of Cytology and Genetics of the Russian Academy of Sciences</p>	<p>Causes and consequences of reproductive interference between two closely-related insect species. J. Hamel - Elon University</p>	<p>Emergence of arbitrary signaling systems in European starlings. V. Heinen, D. Stephens - University of Minnesota</p>	
3:00	<p>Behavioral effects of environmental contaminants on individual fitness. C. Varian-Ramos - Colorado State University - Pueblo</p>	<p>Genomics of friendly behavior in silver fox (<i>Vulpes vulpes</i>). A. Kukekova (1), Johnson (1), G. Zhang (2,3), A. Vladimirova (4), A. Kharlamova (4), L. Trut (4), (1)University of Illinois at Urbana-Champaign; (2)University of Copenhagen; (3)BCI-Sherzhen; (4)Institute of Cytology and Genetics of the Russian Academy of Sciences</p>	<p>FEEDING REGIMEN AFFECTS OFFSPRING QUALITY TO ADVERSE CONDITIONS IN A TROPICAL JUMPING SPIDER. L. Castilho (1), R. Macedo (1), M. Andrade (2), (1)Universidade de Brasilia; (2)University of Toronto</p>	<p>Female Mate Choice Strategy: Active or Passive Choice. A. Prokudina, D. Roff - University of California, Riverside</p>	
3:15	<p>Behavioral effects of environmental contaminants on individual fitness. C. Varian-Ramos - Colorado State University - Pueblo</p>	<p>Effects of the Operational Sex Ratio on Female and Male Mate Choice in <i>Gryllus assimilis</i>. A. Villarreal, S. Bertram, J. Godin - Carleton University</p>	<p>Identifying male reproductive personalities in <i>D. melanogaster</i>: the importance of female behaviour. J. Balaban-Feld, T. Valone - Saint Louis University</p>	<p>Open-ended song learning in northern mockingbirds. D. Gammon - Elon University</p>	
Time					
3:30 pm - 4:00 pm					

LSC Lobby and Atrium
Afternoon Snacks

Time	Physics 120	Tucker 18	Monsanto Auditorium	Physics 126	Physics 114
4:00 pm - 6:00 pm	Using Tinbergen's Four Questions to Understand Emerging Conservation Concerns in Behavioral Toxicology Symposium Moderators: Elizabeth Peterson & John Swaddle	Comparative Canine Behavior Symposium Moderators: Robin Foster & Camille Ward	Mating/Breeding Systems Moderator: Alexander Ophir	Behavioral Plasticity Moderator: Almee S. Dunlap	Communication Moderator: Rindy C Anderson
4:00	Comparative (evolutionary) methods in toxicology. Can they be applied to behavioral toxicology. D. Buchwalter - North Carolina State University	A systematic approach approach for assessing canine preferences. N. Dorey - University of Florida	Sex Ratios and Relatedness: An Alternative Model for Kin Selection on Mole Cricket Legs. K. Keane(1), W. Booth(1), D. Howard(2), F. Hill(1). - (1)University of Tulsa, (2)University of New Hampshire	Fishery-induced Learning and Behavioral Syndromes in Ambloplites Reptans. A. Fedele (1), C. Czizanski (2), J. Fontaine(3), K. Pope(3). - (1)Nebraska Cooperative Fish and Wildlife Research Unit, and School of Natural Resources, University of Nebraska-Lincoln, (2) School of Natural Resources, University of Nebraska-Lincoln, (3)U.S. Geological Survey—Nebraska Cooperative Fish and Wildlife Research Unit, and School of Natural Resources, University of Nebraska-Lincoln	Song learning and cognitive ability in the song sparrow (<i>Melospiza melodia</i>). R. Anderson(1), W. Searcy(2), S. Peters(3), M. Hughes(4), A. Dibbols(2), S. Nowicki(3). - (1)Florida Atlantic University, (2)University of Miami, (3)Duke University, (4)College of Charleston
4:15			Temperature influences sexual signaling and mate preferences in <i>Zenkeropha binoata</i> treehoppers (Hemiptera: Membracidae). D. Jocson, M. Smeester, K. Fowler-Finn - Saint Louis University	Do social challenges prime animals for success in future social instability? A general approach. K. Rosvall(1), M. Felersohn(2), E. George(1), A. Buechlein(1), H. Tang(1), D. Rusch(1), E. Ketterson(1). - (1)Indiana University, (2)Yerba University	Habitat Light Intensity and the Color of Dewlaps. L. Fleishman(1), M. Leal(2) - (1) Union College, (2)University of Missouri
4:30	Understanding the effects of emerging contaminants and their implications for conservation. J. Kerby(1), D. Davis(1), M. Schwartz(2). - (1)University of South Dakota, (2)U.S. Fish and Wildlife Service, South Dakota Field Office	Cooperation and tolerance in wolves and dogs. S. Marshall-Pescini(1,2), Z. Nagy(1,2), F. Range(1,2). - (1)Wissenschaftszentrum für Anthropologie, University of Veterinary Medicine, Vienna, (2)Medical University of Vienna, University of Vienna., (2)Wolf Science Centre	Ultraviolet reflectance predicts body condition and territory size in Neotropical Arapaima. M. Galotti(1), P. Dimz(1), M. Webster(2), R. Macedo(1) - (1) Universidade de Brasília, (2)Cornell University	Behavioral flexibility in <i>Procyon lotor</i> (raccoon). S. Daniels(1), R. Fanello(1), A. Gilbert(2), S. Beison-Sammam(1). - (1)University of Wyoming, (2)National Wildlife Research Center/Animal and Plant Health Inspection Service University of Wyoming	More than Meets the Eye: Visual Biology, Ecology, and Behavior of Anolis Lizards. D. Steinhilber(1), M. Leal(2). - (1)University of North Carolina at Chapel Hill, (2)University of Missouri
4:45			A preference to bond? Male prairie voles form pair bonds in the presence of multiple receptive females. A. Ophir(1), T. Blockier(2). - (1)Cornell University, (2) Oklahoma State University	Butterflies track changing resources: experience does not shape individual specialization. M. Steek, E. Shell-Rood - University of Minnesota	Song type selection by rock wrens during natural singing bouts improves long-distance signal transmission. L. Benedic(1), N. Warming - University of Northern Colorado
5:00	Concluding Remarks. J. Swaddle, E. Peterson	Dog-to-Dog (<i>Canis familiaris</i>) Greetings. C. Ward - About Dogs LLC	Assortative mating on the basis of personality traits in zebra finches. K. Faust, M. Goldstein - Cornell University	Evolutionary mismatch and pathological behavior: the experimental evolution of supernormal stimuli. A. Dunlap(1), M. Marcus(2), D. Stepien(2). - (1)University of Missouri, (2)University of Minnesota	Distance Dependent Female Preference for Male Calling Song Components in a Leaf-Mating Insect. Howard(1), N. Lee(2), A. Dibbols(1), E. Jorde(1), R. Jorde(1), C. Hall(1). - (1)University of New Hampshire, (2)University of Minnesota
5:15			Habitat Complexity Influences Mate Monopolization but not Territory Defense Costs in Male Collared Lizards. C. Braun, T. Baird - University of Central Oklahoma	The influence of complex and threatening environments during development on adult behavior. C. Depassant(1), V. Balthazart(2). - (1)Pennsylvania State University, Altoona, (2)Pennsylvania State University	SOCIAL FACILITATION OF VISION-MEDIATED FOOD AVERSION IN PEST BIRDS. S. WERNER, S. DELIBERTO, J. CARLSON, D. REID. USDA National Wildlife Research Center
5:30	Discussion		Interindividual Variation in Natal Dispersal: What Influences Dispersal Decisions in Owl Monkeys? M. Conley(1), M. Rivara(2), V. Davalos(2), E. Fernandez-Duque(3). - (1)University of Pennsylvania, (2)Fundacion ECC, (3) Yale University	Contaminant-induced changes in the development and expression of innate larval fish behaviors. S. Ward(1), L. Wang(1), H. Schoenflies(1), (1)St. Cloud State, (2)St. Cloud State, (3)St. Cloud State	Supper First, Then Song: singing mice mediate song investment biases on resource level. E. Gijlis, S. Phelps - University of Texas at Austin
5:45			Oviposition Behavior and Sexual Interference in Two Rapid Frogs. S. Herrick, K. Wells - University of Connecticut, Dept. of Ecology and Evolutionary Biology		
Time	Tucker 111		On Your Own	The Heidelberg	
6:00 pm - 7:30 pm	ABS Conservation Committee Meeting	ABS Conservation Committee Meeting	Dinner on your own	LBGT Dinner	
Time			Jesse Auditorium		
7:30 pm - 8:30 pm		Host's Plenary and Open Public Talk: Are We Smart Enough to Know How Smart Animals Are? Frans de Waal(1-2) - (1)Living Links Center Yerkes National Pri, (2)Emory University			

Time		Morning Yoga		
7:00 am - 7:45 am	Lawn between LSC and Rollins - alt location ABNR Building (bring your own towel or yoga mat)			
Time	ABNR Conservation Auditorium			
8:15 am - 9:15 am	Plenary: Adaptations to brood parasitism in host generalist and host specialist cowbirds. J. Carlos Reboreda - University of Buenos Aires			
Time	ABNR Conservation Auditorium			
9:15 am - 9:30 am	Founders Poster Presentations			
9:15 am - 9:30 am	Benjamin J. Abis (University of Missouri-St. Louis) Chelsea O. Bennice (Florida Atlantic University) Eilee G. Cook (University of Missouri)	Morgan L. Gustison (University of Michigan) Shuyang Jin (University of Illinois) Kelsey B. McCune (University of Washington)	Allison L. Onofrio (University of New Hampshire) Lindsey A. Robbins (University of Southampton)	Natalie S. Roberts (Univ of Maryland Baltimore County) Levi Storks (University of Missouri)
Time	LSC Lobby and Atrium			
9:30 am - 10:00 am	Morning Snacks			
Time	Physics 120		Tucker 18	
10:00 am - 12:00 pm	Monsanto Auditorium	Physics 114	Applied Animal Behavior Moderator: Terri Bright	
10:00	Behavioral Genomics in Non-Model Systems Symposium Moderators: David Schulz, Johannes Schulz & Zuleyma Tang-Martinez	Sexual Selection & Conflict Moderator: Christopher Clark	Investigating Behavioral, Cognitive, and Memory Differences Between Owned and Shelter Dogs. L. Gunter, C. Wynne - Arizona State University	
10:00	Convergent behavior from variable circuits: limits and implications of variable gene expression. D. Schulz - Division of Biological Sciences, University of Missouri	The effects of urbanization on the behavior of black widow spiders. C. Johnson - Arizona State University	A Chow Chow's Acute Fear of the Kitchen and its Appliances. C. Coppola - Dog and Company Behavior Consulting	
10:00	Ontogeny of sex differences in <i>Pholcus</i> cellar spiders searching for lost prey. J. Kilmer - University of Wisconsin-Milwaukee	Nutritional stress alters adaptive decision-making in a butterfly. S. Jaumann, E. Snell-Rood - University of Minnesota	A Multiple Baseline Study of the Behavioral Treatment of Fearful, Undersocialized Dogs. K. Collins(1), K. Miller(2), P. Reid(2), L. Zvein(1) - (1) ASPCA Behavioral Rehabilitation Center, (2) ASPCA Anti-Cruelty Behavior Team	
10:00	Evidence for cognitive trade-offs in threeesped sticklebacks. M. Bensky, T. Seal, E. Johnson, A. Bell - University of Illinois Urbana-Champaign	Do Lizard Moms Protect Their Offspring Via Anti-Fungal Microbes. S. Weiss, M. Cox, L. Amett, M. Martin - University of Puget Sound	Helping Owners of an Aggressive Dog Set and Achieve Their Goals. T. Bright - MSPCA-Angell	
10:00	Oh say can you see: Perceived properties of warning signals by dawn's early and changing light. R. Rutowski(1), B. Seymoure(1), N. Lessios(1), K. Pegram(1,2) - (1) Arizona State University, (2) Desert Botanical Garden	Examining individual behavior variation of African giant pouched rats. D. Lee, A. Ophir - Cornell University	Introduction of environmental enrichment for a ewe in social isolation improves welfare. J. Watson, S. McDonnell - University of Pennsylvania School of Veterinary Medicine New Bolton Center	
10:00	Synaptic and Molecular Differences in Neural Circuits Underlying Species-typical Nudibranch Behavior. P. Katz - Georgia State University	Factors influencing the emergence decision of periodical cicadas. K. Houglund, R. Cocroft - University of Missouri Columbia	Environmental Enrichment to Resolve Fearful, Stereotypical & Agnostic Behaviors in Shelter Dogs. S. Fomes - ACE-Academy of Canine Enrichment	
11:00	Caught in peculiar positions: Variation in the mechanisms of monogamy. S. Phelps - University of Texas at Austin	Development of integrated antipredator phenotypes. F. MCO	Social Facilitation as a Tool for Treating Extreme Fear in an Undersocialized Dog. P. Reid(1), K. Collins(2) - (1) ASPCA Anti-Cruelty Behavior Team, (2) ASPCA Behavioral Rehabilitation Center	
11:00	Localization of Electric Communication Signals Varies with Electroreceptor Anatomy in Mormyrid Fishes. A. Vález, D. Ryoo, B. Carlson - Washington University in St. Louis	The proximate mechanisms of adaptive early hatching in hourglass treefrogs. K. Cohen, K. Warkentin - Boston University	Sublethal Effects on Behavior of White Sturgeon (<i>Acipenser transmontanus</i>) Exposed to Copper. H. Puggis, R. Calfee, E. Little, E. Scott - US Geological Survey	
11:00	I've got my eye on you: social monitoring and mimicking in European starlings. S. Butler, C. Hosinski, J. Lucas, E. Fernandez-Juricic - Purdue University	Who needs 'lazy' ants? Investigating potential functions of inactive workers. D. Charbonneau, A. Dornhaus - University of Arizona	Effects of Rearing Technique on Behavior in Captive-Reared Whooping Cranes (<i>Grus americana</i>). C. Sadowski(1), M. McPhee(1), G. Olsen(2) - (1) University of Wisconsin-Oshkosh, (2) USGS Patuxent Wildlife Research Center	
11:30	Flexible associations between transcript abundance and behaviors. K. Hoke(1), E. Fischer(2) - (1) Colorado State University, (2) Harvard University			
11:45				
12:00				
Time	Physics 120	On Your Own		
12:00 pm - 1:30 pm	Undergraduate Luncheon	Lunch on your own		

Time		ABNR Conservation Auditorium			
1:30 pm - 2:20 pm		Keynote: New Fellow Talk - Cognitive ecology of fear in a changing world. D. Chivers - <i>University of Saskatchewan</i>			
Time		Monsanto Auditorium	Physics 126	Physics 114	Tucker 18
2:30 pm - 4:30 pm		Behavioral Genomics in Non-Model Systems Symposium Moderators: David Schulz, Johannes Schul & Zuleyma Tang-Martinez	Social Behavior + Social Evolution Moderator: Laurie Kaufman	Communication Moderator: Ryan C. Taylor	Applied Animal Behavior Moderator: Nathaniel Hall
2:30		Cooperation and conflict in social insects: from phenomes to genes C. Grozinger - <i>Dept of Entomology, Center for Pollinator Research, Penn State University</i>	Linking Social Complexity and Flock Structure to Vocal Communication in Chickadees and Titmice S. Mullen(1), N. Lancaster(1), W. G. (1), A. Karpipadath(1), F. Leber(2), K. Steving(3), J. Lucas(1) - (1) <i>Purdue University</i> , (2) <i>University of Tennessee</i> , (3) <i>University of Florida</i>	Predator, competitor, mate: Signal detection and discrimination by Neotropical forest katydids L. Symes, H. I. ter Hofstede - <i>Dartmouth College</i>	Can the C-BARQ Be Used as a Tool to Create Behavior Profiles for Working Dogs A. Ulrich - <i>The Evergreen State College</i>
2:45			Solicitation and response to preening in the Arabian Babblers Turdoides squamiceps A. Leber(1), M. Heber(1,2) - (1) <i>Graduate Center, City University of New York</i> , (2) <i>Hunter College, City University of New York</i>	Calling behavior of males and females of a Bornean frog in the presence of conspecifics and possible sex-role reversal in the species T. Crane(2), K. Wells(1) - (1) <i>Department of Ecology and Evolutionary Biology, University of Connecticut</i> , (2) <i>Department of Biology, Universitat Brunel Darussalam</i>	Evaluation of Behavioral Interventions to Decrease Unattractive Behavior in Shelter Dogs A. Protopopova(1), C. Wynne(2) - (1) <i>Texas Tech University</i> , (2) <i>Arizona State University</i>
3:00		Why do harvester ant colonies differ in the collective regulation of foraging D. Gordon - <i>Stanford University</i>	Space Use and Habitat as Drivers of Vocal Complexity in Chickadees and Titmice N. Lancaster(1), S. Mullen(1), A. Karpipadath(1), M. Heber(1), K. Steving(3), J. Lucas(1) - (1) <i>Purdue University</i> , (2) <i>University of Tennessee</i> , (3) <i>University of Florida</i>	Variation in signal timing influences female choice in the túngara frog: Do females really give a choice? R. Taylor(1,2), K. Heber(1) - (1) <i>Salisbury University</i> , (2) <i>Smithsonian Tropical Research Institute</i>	The effect of Pre-exposure and Pavlovian Conditioning on Odor Detection Performance N. Hall, C. Wynne - <i>Arizona State University</i>
3:15			A colony-level behavioral syndrome links to plant health in the Arizona <i>Cecropia</i> mutualism P. Marting(1,2) - (1) <i>Arizona State University</i> , (2) <i>Smithsonian Tropical Research Institute</i>	Animal Choruses Emerge from Receiver Psychology M. Greenfield(1), Y. Esquer-Garcias(2,3), R. Streit(2,3), V. Part(1) - (1) <i>Institut de recherche sur la biologie de l'insecte (IRB) CNRS UMR 7261, Parc de Grandfont, 2)INRA, UMR 1062 CBGP, Campus International de Bellarguet, F-34988</i> , (3) <i>INRA, UMR 1333 DGIMI, Université de Montpellier, Place Eugène Bataillon, 34095</i>	Saving dogs who guard food in the shelter E. Weiss, H. Mohan-Gibbons, P. Reid - <i>ASPCA</i>
3:30		Comparative methods offer powerful insights into social evolution in halictid bees S. Köcher - <i>Princeton University</i>	An experimental approach to decoding the function of the woodpecker drum E. Schuppe, M. Fluxus - <i>Wake Forest University</i>	Common Biases in Sound Localization in Insects and Anurans When Directional Cues Conflict M. Reichert(1,2), J. Clemens(3), B. Ronacher(2) - (1) <i>University College Cork</i> , (2) <i>Humboldt University</i> , (3) <i>Princeton University</i>	The effect of maternal style on later offspring cognition and temperament in guide dogs E. Bray, R. Seyfarth, D. Cheney, J. Serpell - <i>University of Pennsylvania</i>
3:45			The evolution of stridulation in the Ponerine ants... T. Golden - <i>The University of Tulsa</i>	Effects of migratory behavior on morphology and song - are they concordant? N. Najjar, L. Benedict - <i>University of Northern Colorado</i>	The Relationship between Previous Use and Litterbox Appeal in Multi-Cat Households J. Ellis, R. McGowan, F. Matlin - <i>Nestlé Purina</i>
4:00		Social relationships at the molecular level: lessons from nonhuman primates J. Tung(1), N. Snyder-Mackler(1), J. Sanz(2), A. Lead(1), S. Alberts(1), E. Archie(3), J. Kohn(4), M. Wilson(4), L. Barreto(2) - (1) <i>Duke University</i> , (2) <i>University of Montreal</i> , (3) <i>University of Notre Dame</i> , (4) <i>Emory University</i>	Male ruffed grouse (<i>Bonasa umbellus</i>) responses to novel drumming stimuli during the breeding season N. O'Neill(1), J. Charrier(2), A. Iwanik(1) - (1) <i>University of Lethbridge</i> , (2) <i>CNRS, Paris Sud</i>	Altered Behavioral, Hormonal, and Social-Cognitive Functioning in Shelter Dogs from Deprived Environments A. Phillips Buttner, R. Strasser - <i>University of Nebraska at Omaha</i>	Three simple handling techniques effectively distract nervous horses during a veterinary procedure S. McDonnell, J. Watson - <i>University of Pennsylvania School of Veterinary Medicine New Bolton Center</i>
4:15			Squirrel Monkeys in Costa Rican Countryside: Importance of Anthropogenic Environments for Conservation L. L. Kaufman, T. Galey - <i>Oklahoma City University</i>	Assessing the role of wing spots in communication in a butterfly using an electronic device A. Stehr(1), K. Hayes(2), E. Wojan(1,3) - (1) <i>Baylor University</i> , (2) <i>Denison University</i> , (3) <i>California Polytechnic State University</i>	
Time		LSC Lobby and Atrium			
4:30 pm - 4:45 pm		Afternoon Snacks			
Time		ABNR Conservation Auditorium			
4:45 pm - 5:45 pm		Business Meeting			
Time		ABNR Conservation Auditorium			
5:45 pm - 6:45 pm		ABS Strategic Planning Townhall			
Time		LSC Atrium Floors 1 - 3			
7:30 pm - 10:00 pm		Poster Session & Reception (see page 26)			

Time	Morning Yoga	Physics 114
7:00 am - 7:45 am	Morning Yoga	Physics 114
8:15 am - 8:30 am	Morning Business	Physics 126
8:30 am - 9:30 am	Plenary: Parenthood on the brain: Neural Mechanisms of Piggyback rides and nursing behavior in poison frogs. L. O'Connell - Harvard University	Cognition & Learning Moderator: Manuel Leal
9:30 am - 10:00 am	Morning Snacks	Prey Detection & Foraging Moderator: Jacob Francis
10:00 am - 12:15 pm	Allee Symposium Moderator: Jeff Podos	Problem Solving in an American Crow (<i>Corvus brachyrhynchos</i>) and Fish Crow (<i>Corvus ossifragus</i>). P. Foerster(1), V. Perrett(1), A. Reeves(2), S. Carlson(2) - (1)The University of Tennessee at Chattanooga, (2)The Tennessee Aquarium
10:00	Social carnivores outperform social carnivores on an innovative problem. N. Borrego, M. Gaines - University of Miami	A Multi-Species Approach to the Study of Behavioral Flexibility. M. Leal(1), B. Powell(2) - (1)University of Missouri, (2)Cornell University
10:15	Contests, cannibals, and caves: understanding agonistic interactions in whip spiders (Amblypygi). K. Chapin, P. Nonacs - Department of Ecology & Evolutionary Biology, University of California	Bright or Bold? Personality but not Stress, Affects Responsiveness in Cognitive Tasks in Budgeteers. A. Medina-Garcia(1), J. Jawor(1, 2), T. Wright(1) - (1)New Mexico State University, (2)National Science Foundation
10:30	The role of development in shaping the life history, behavior, web structure of black widow spiders. N. Dirtenzo - University of California, Davis	Flexibility in spatial learning in wild food-caching chickadees. V. Pravosudov(1), R. Croston(1), C. Branch(1), A. Pteral(1), D. Kozlovsky(1), E. Bridger(2), T. Parchman(1) - (1)University of Nevada Reno, (2)University of Oklahoma
10:45	Captive wolves (<i>Canis lupus</i>) and pack-living dogs (<i>Canis lupus familiaris</i>) show similar responses to inequity. J. Essler(1, 2), S. Marshall-Pescini(1, 2), F. Range(1, 2) - (1)Wolf Science Center, (2)Comparative Cognition, Messerli Research Institute, University of Veterinary Medicine Vienna, Medical University of Vienna and University of Vienna	Personality and problem solving in zebra finches. L. Barrett, J. Marsh, S. Benson-Amram - University of Wyoming
11:00	Sexual Selection and Evolution of the Visual System in Live-bearing Fish. F. Breden(1), B. Sandkam(2) - (1)Department of Biological Sciences, Simon Fraser University, (2)Department of Biology, University of Maryland	The Navigational capabilities of the solitary foraging nocturnal bull ant, <i>Myrmecia midas</i> . C. Freas, A. Narendra, K. Cheng - Macquarie University
11:15	On the origin and evolution of female preferences for male traits. K. Shaw, H. Reeve - Cornell University	Investigation of Causal Understanding in Raccoons Using the Aesop's Fable Paradigm. L. Slantoni(1), S. Johnson(2), A. Gilbert(2), S. Benson-Amram(1) - (1)University of Wyoming, (2)USDA National Wildlife Research Center
11:30	On the origin and evolution of female preferences for male traits. K. Shaw, H. Reeve - Cornell University	Vocal Learning in the Costa's Hummingbird (<i>Calypte costae</i>). K. Johnson(1), C. Clark(1) - (1)University of California Riverside, (2)University of California Riverside
11:45	On the origin and evolution of female preferences for male traits. K. Shaw, H. Reeve - Cornell University	Uncertainty in risky environments: a high-risk phenotype interferes with social learning. A. Crane, M. Ferrari - University of Saskatchewan
12:00	On the origin and evolution of female preferences for male traits. K. Shaw, H. Reeve - Cornell University	Ultraviolet condition of wood influences foraging substrate selection by a woodpecker, <i>Dryocopus pileatus</i> . S. O'Daniels(1, 2), D. Kesler(2), J. Mihal(3), E. Webb(2, 4), S. Werner(5) - (1)Missouri Cooperative Research and Wildlife Sciences, University of Missouri, (2)Division of Plant Sciences, University of Missouri, (3)Division of Plant Sciences, University of Missouri, (4)USGS Cooperative Research Unit, University of Missouri, (5)National Wildlife Research Center, USDA/APHIS/Wildlife Services
12:00 pm - 1:30 pm	LSC 171 Reading Room CAAB Lunch Meet & Greet	On Your Own Lunch on your own

Time	Monsanto Auditorium	Tucker 18	Physics 126	Physics 114
1:30 pm - 3:30 pm	Allee Symposium Moderator: Jeff Podos	New Frontiers in Animal Communication Symposium Moderators: Margaret Packer & Felix Breden	Cognition & Learning Moderator: Brendan J Barrett	Behavioral Genetics & Genomics Moderator: Laura R. Stein
1:30	Group composition begets conflicting dynamics of collective behavior and bacterial transmission. C. Keiser(1), J. Pruitt(1,2) (1)University of Pittsburgh, (2) University of California Santa Barbara	Decision-making in insects (and plants) based on plant-borne vibrations. R. Cocroft - University of Missouri	Jumping spiders as a model for attention: integration of eyetrack(1), G. Mads(3), R. Hoy(3) (2) Department of Psychological and Brain Sciences, (3) Department of Neurosciences, University of Arizona (3) Department of Neurobiology and Behavior, Cornell University	Exploring the thermosensitivity of Gustatory Receptors in <i>Drosophila melanogaster</i> . A. Mishra, T. Zats - University of Missouri-Columbia
1:45			Nutritional constraints on brain evolution vary across butterfly lineages E. Snell-Rood(1), A. Espeseth(1,2), S. Jaaman(1), E. Swanson(1) - (1)University of Minnesota, (2) University of Nevada	Neurogenomics and individual differences in aggressiveness in male sticklebacks. A. Bell(1,2), S. Mukherji(1) (1)Carli Wess Institute for Genomics Biology, University of Illinois Urbana Champaign, (2) School of Integrative Biology, University of Illinois Urbana Champaign
2:00	Complex color change communication in chameleons R. Ligon(1,2), (1)Arizona State University, (2)Cornell Lab of Ornithology	Linking mate choice with cognition in poeciliid fishes M. Cummings - University of Texas	An unusual reinforcer: How do bees learn about the pollen they collect F. Muth, A. Leonard - University of Nevada, Reno	Using small RNAs to uncover mechanisms of behavioral plasticity and evolution L. Stein, K. Hoke - Colorado State University
2:15			When It Comes To Pollen, Bees Have Good Taste A. Leonard, J. Francis, F. Muth - University of Nevada	Introgression of genes in a female pheromone production pathway alter male courtship response J. Gleason, D. Swartzlander - University of Kansas
2:30	A Directional Preference without Directional Selection: An Early Stage of Preference Evolution . M. Murphy - University of Missouri	Animal Communication goes Multidimensional E. Hebets - School of Biological Sciences, University of Nebraska-Lincoln	Age and Skill Predict Individual Variation of Social Learning Strategies in Wild Capuchin Monkeys B. Barnett(1,2), (1) UC Davis Animal Behavior Graduate Group, (2) UC Davis Department of Anthropology	The molecular substrates of species discrimination: Vomeronasal transcriptomes in female mice P. Campbell, M. Couger - Oklahoma State University
2:45			Domestic Dogs Categorize and Respond to Emotional Expressions N. Abuduerque(1,2), K. Guo(2), A. Wilkinson(2), C. Savalli(3), E. Ohta(1), D. Mills(2) - (1)University of São Paulo, (2)University of Lincoln, (3)Federal University of São Paulo	Characterizing the neurotranscriptomic states in alternative stress coping styles R. Wong(1,2), M. Lamm(2), J. Godwin(2) - (1)University of Nebraska at Omaha, (2)North Carolina State University
3:00	Neotropical Wrens Learn New Duet as Adults . K. Rivera-Caceres(1), E. Quiros-Guerrero(2), M. Araya-Salas(3,4), W. Seary(1) - (1)Department of Biology, University of Miami, (2)School of Biology, University of St. Andrews, (3)Laboratorio de Bioacustica, Escuela de Biología, Universidad de Costa Rica, (4)Cornell Lab of Ornithology, Cornell University	Neural Basis of Auditory Scene Analysis . G. Klump - Cluster of Excellence HearingDall, Animal Physiology and Behaviour Group, Department of Neuroscience, School of Medicine and Health Sciences, Carl von Ossietzky University Oldenburg	Female brown-headed cowbirds 'parasitize' public information when prospecting for nests . D. White, H. Davies - Wilfrid Laurier University	The effect of cold exposure on mating behavior in resistant and resilient <i>Drosophila melanogaster</i> genotypes E. Everman(1), J. Gleason(2), F. Hunter(3), T. Morgan(1) - (1)Kansas State University, (2)University of Kansas, (3)Iowa State University
3:15			Introductory whistle is sufficient for species recognition in golden-crowned sparrow nestlings E. Hudson, D. Shizuka - University of Nebraska-Lincoln	Patterns of genetic and phenotypic variation within a recent katydid radiation G. Ney, J. Schul - University of Missouri

LSC Lobby and Atrium

Afternoon Snacks

Time

3:30 pm - 4:00 pm

Time	Monsanto Auditorium	Tucker 13	Physics 126	Physics 114
4:00 pm - 6:00 pm	Ailee Symposium Moderator: Jeff Podós	New Frontiers in Animal Communication Symposium Moderators: Margaret Preece & Felix Breden	Neuro/Endocrine and Physiological Mechanisms Moderator: Alexander T. Baugh	Parental Care Moderator: Ken Yasukawa
4:00	Call combinations, vocal exchanges, and inter-party involvement in wild inter-party (Pair Partners), I. Schanberg - University of Pennsylvania	Phylogenomics of Acoustic Communication in Speciation, E. Lehoucq(1), W. Booker(1), A. Bigelow(1), J. Schulz(2), C. Gerhardt(2), J. Depaulis(1), Biological Science, 319 Stadium Dr., Florida State University, (2) Division of Biological Sciences, 105 Tucker Hall, University of Missouri	Factors Determining the Effects of Human Interaction on the Cortisol Levels of Shelter Dogs, R. Willen - Wright State University	Behavioral sources of individual variation in testosterone in eastern bluebirds (<i>Sialia sialis</i>), M. Ambaradi, J. Grindstaff - Oklahoma State University
4:15			Do Hormonal Syndromes Underlie Behavioral Syndromes? Decomposing Notoriously Labile Traits in a Songbird, A. Baugh - Swarthmore College	Antiparasite behavior of red-winged blackbirds in response to brown-headed cowbirds, K. Yasukawa(1), J. Linzey, Robbins(1), C. Henger(2,3), M. Haber(2) - (1)Beloit College, (2)Hunter College, (3) Fordham University
4:30	Experience matters: The role of the social environment in mate choice plasticity, B. Stoffer - University of Cincinnati	Coding and Reliability in Electric Fish Signals, P. Stoddard - Florida International Univ	Eavesdropping Eases Masking: Socially-induced Plasticity and Call-like Masking in Green Treefrogs, M. Call(1), W. Wilczynski(2) - (1)Vassar College, (2) Georgia State University	Effects of female nutrition on life history traits of the triangulate cobweb spider (<i>Stegodya triangulosa</i>), E. Van Ert, M. Townner - Department of Integrative Biology, Oklahoma State University
4:45			Environmental Causes and Transgenerational Consequences of Maternal Hormone Deposition in Insect Eggs, K. Crocker, E. Tibbetts, M. Hunter - University of Michigan	Impact of Predation Risk on the Duration of Parental Care in Amphipods, A. Ellickson, S. Lewis - Carroll University
5:00		Flexibility in female preferences with age and social experience in sailfin mollies (<i>Poecilia latipinna</i>), M. Preece, R. Halstern, M. Voytko, E. Soby, A. Abbott, K. Hogan, M. Ramos-Negrete - Clemson University	Conspecific aggression does not initiate steroid release in Florida scrub-jay nestlings, S. Ferguson, S. Schoech - University of Memphis	A Classic Question Revisited: Disentangling Confounding Hypotheses Surrounding Parental Investment Theory, J. Shew(1), J. Van der Meer(2), B. Caldwell(1), E. Schaubert(1), C. Nielsen(1) - (1) Southern Illinois University, (2) Arkansas Tech University
5:15			Does ER α Expression Influence Male Prairie Vole Sociosexual Behavior in the Field, C. Lambert(1), B. Keane(2), B. Cushing(3), N. Solomon(1) - (1)Miami University, (2)Miami University-Hamilton, (3)University of Texas at El Paso	Elucidating Effects of 17 α -Ethinylestradiol on Courtship, Parental Care and Nest Success in Birds, M. Naylon, J. Grindstaff - Oklahoma State University
5:30		Vocal Performance in Frogs and Birds, J. J. Podós - University of Massachusetts	Fecal Estradiol Correlates with Aggressive and Sexual Behavior in Stump-tail Macaque Females, A. Cerdas-Molina, E. Rosiles-Rojas, L. Mayagüita-Navales, G. Matamoros-Trejo, L. Hernández-López, G. Estudillo-Mendoza - Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz	Selfish mothers and altruistic aunts in free-ranging dogs, A. Bhadra(1), M. Paul(1), S. Sen Majumder(1), A. Nandi(2) - (1)Behaviour and Ecology Lab, Dept of Biological Sciences, Indian Institute of Science Education and Research Kolkata, (2)Dept of Physical Sciences, Indian Institute of Science Education and Research Kolkata
5:45			Pair Bond Status Moderates Within-Person Associations Between Sexual Activity and Testosterone in Women, K. Goldey(1,2), T. Conley(2), S. van Anders(2) - (1)St. Edward's University, (2)University of Michigan	
Time			Physics 120	
5:00 pm - 7:00 pm			NEW TO ABS: Public Affairs Workshop "Building personal bridges: connecting your science to your communities"	
Time			Tucker 111	
6:00 pm - 7:00 pm			AABC Business Meeting	
Time			The Heidelberg	
8:00 pm - 10:00 pm			Student Party in Town	

Time		Location to be Determined (check at registration)			
6:45 am - 7:45 am		ABS 5K Fun-Run			
Time		Morning Yoga			
7:00 am - 7:45 am		Lawn between LSC and Rollins - alt location ABNR Building (bring your own towel or yoga mat)			
Time		Monsanto Auditorium			
8:00 am - 8:15 am		Morning Business			
Time	Monsanto Auditorium	Physics 126	Physics 114	Tucker 18	
8:15 am - 9:30 am	Past-President's Symposium Moderator: Regina Macedo	Behavioral Plasticity Moderator: Lynne E. Beaty	Ecological Effects Moderator: Lisa Angeloni	Predation & Foraging Moderator: Alicia Mathis	
8:15	Introduction	Behavioral Responses to Predation Risk in Brooding Female Amphipods. S. Lewis, K. Williams, K. Navins - Carroll University	Impacts of Heavy Metals on Gross Morphology and Visual Behavior in Zebrafish. M. LeFauve, V. Connaughton - American University	How does retinal configuration make the head and eyes of birds move? Implications for anti-predator behavior. E. Fernandez-Juricic(1), B. Moore(1), L. Tyrell(1), D. Pital(1), O. Bininda-Emonds(2) - (1)Purdue University, (2)University of Oldenburg	
8:30	Fitness consequences of multilevel sociality in the cooperatively breeding Greater Ani (<i>Crotophaga major</i>). C. Rehi, M. Stong - Princeton University, Dept. of Ecology and Evolutionary Biology	Examining the existence and maintenance of behavioral syndromes in eastern bluebirds (<i>Sialia sialis</i>). M. Pandit, D. Richardson, D. Perryman, J. Grindstaff - Oklahoma State University	Individual Corticosterone Variation Correlates with Urban-Rural Behavioral Differences in Northern Cardinals. P. Huang, R. Kimball, C. St. Mary - University of Florida	The Role of Vision in Sparrow Anti-predator Behavior. L. Tyrell, D. Pita, E. Fernandez-Juricic - Purdue University	
8:45	Chronic Predation Risk Canalizes Tadpole Behavior. L. Beaty, B. Luitbeg - Oklahoma State University	Ecological adaptation and signal plasticity in an experimental host-plant shift. R. Rodriguez(1), T. Wood(2), F. Stearns(3), R. Snyder(4), K. Tilmon(5), M. Cast(6), R. Hunt(7), R. Cocroft(8) - (1)University of Wisconsin-Milwaukee, (2)University of Delaware, (3) Johns Hopkins University, (4)State University of New York, Potsdam, (5)Ohio State University, (6)Blue Ridge Community College, (7)Indiana University Southeast, (8)University of Missouri	Color polymorphism in the spider <i>Gasteracantha cancriformis</i> : the role of different visual systems. N. Gonçalves, F. Gawryszewski - Universidade Federal de Goiás	When Mothers Don't Know Best: Parasitoid Host Range Influences Foraging Mistakes. C. Stenoién, K. Oberhauser - University of Minnesota - Twin Cities	
9:00	The spatial dynamics of female choice: do male aggregations facilitate mate comparisons. E. DuVal, C. Vanderbilt - Florida State University	Do behavioral adaptations correlate with individual responses to white-nose syndrome in little brown bats. M. Gagnon(1), G. Turner(2), D. Reeder(3), B. Sewall(1) - (1)Temple University, (2) Pennsylvania Game Commission, (3)Bucknell University	Personality of two predators jointly predicts prey survival of and plant damage in a tritrophic system. J. Lichtenstein(1), H. Rice(1), J. Pruitt(1, 2) - (1)University of Pittsburgh, (2)University of California Santa Barbara	Effects of predation risk and breeding site value on male guarding behavior and offspring survival. S. Poo(1), M. Chuang(2), Y. Kam(2) - (1) Sakaeat Environmental Research Station, (2) Tunghai University	
9:15			Road traffic noise affects predator detection and flight response in a free-ranging mammal. L. Angeloni(1), G. Shannon(1,2), K. Crooks(1), G. Wittenmyer(1), K. Fristrup(3) - (1)Colorado State University, (2)Bangor University, (3)National Park Service	Effects of lead and zinc pollution on antipredator behavior and spatial learning in orange throat darters. A. Mathis, S. Blecha - Missouri State University	
Time		LSC Lobby and Atrium			
9:30 am - 10:00 am		Morning Snacks			

Time	Monsanto Auditorium	Physics 126	Physics 114	Tucker 18
10:00 am - 12:00 pm	Past-President's Symposium Moderator: Regina Macedo	Conservation Moderator: K-lynn Smith	Social Behavior + Social Evolution Moderator: Julia B Saltz	Communication Moderator: Stephen Nowicki
10:00	Physiology, social interactions, and the honesty of sexual signals. M. Webster, R. Ligon, G. Leighton - Cornell University	Song learning in a critically endangered bird, the regent whistler (<i>Ptilinopus regina</i>). K. Smith, M. Vecse(1), D. Wilkin(2), B. Loh(3) (1)Macquarie University, (2)Taronga Conservation Society, (3)University of Maryland Baltimore County	Does allopreening control avian ectoparasites. G. Goodman, S. Villa, D. Clayton - University of Utah	Does phylogeny, habitat, or climate better predict chemical signals? S. Campos(1), J. Puetz(2), E. Guldberg(1), H. Soini(1), J. Morige(2), C. Viala(4), M. Novotny(1), D. Heister(1), E. Mariani(1) Indiana University (2)Indiana State University, (3)Universidad Nacional Autónoma de México, (4)Universidad Autónoma de Ciudad Juárez
10:15		Anthropogenic noise impacts on nestling growth in Tree Swallows, a native bird. A. Injalain, G. Paiticelli - University of California	Social networks across fission-fusion changes: Temporal organization and reproductive consequences. G. Kohn - Indiana University	Effects of acoustic environment on male calling activity and timing in Neotropical forest katydids. H. Holsaete(1), R. Page(2), L. Symes(1), (1)Dartmouth College, (2)Smithsonian Tropical Research Institute
10:30	Breeding aggregations beget unstable population dynamics but adaptive group traits in social spiders. J. Pruitt(1), S. Reicher(2), C. Goodnight(3) - (1)UC-Santa Barbara, (2)University of Tennessee, (3)University of Vermont	Can the variation in songbird mercury be explained using trophic level, phylogeny and foraging guild. C. Knutsen, C. Ramos - Colorado State University - Pueblo	The effects of behavioral composition on network dynamics and information flow in Trinidadian guppy shoals. M. Hasenjaeger, L. Dugatkin - University of Louisville	Evolution of complex calls: function of one component points to its evolutionary origin. N. Harness, M. Spikes, J. Schul - University of Missouri
10:45	Male and female breeding strategies in common marmosets <i>Callithrix jacchus</i> . M. Yamamoto(1), A. Sousa(1), W. Hattori(2), F. Albuquerque(3), M. Amada(1), (1)Universidade Federal do Rio Grande do Norte, (2)Universidade Federal de Uberlândia, (3)Universidade Federal da Paraíba	Evaluating the Potential Invasiveness of Capybaras (<i>Hydrochoerus hydrochaeris</i>) Using Nutris (<i>Mycocastor coypus</i>). E. Congdon, A. Harris - Bethune-Cookman University	What, if anything, is a social niche. J. Saltz, A. Geiger, R. Anderson, B. Johnson, R. Marren - Rice University	Function of male vibrations during courtship in black widow spiders (Araneae: Therididae). S. Sivalingham, A. Mason - University of Toronto Scarborough
11:00	Dispersal from the field: Intraspecific variability in prairie vole sociality. N. Solomon - Miami University	Innovation Rate and Urban Tolerance in Birds. B. Lucas - Humboldt State University	Social aggression, brain amines and the evolution of eusociality in the bee <i>Megalopta</i> . A. Smith - George Washington University	Song as a Function of Age in Swamp Sparrows. S. Nowicki, S. Peters - Duke University
11:15	Breeding aggregations in Horseshoe Crabs: Causes of Structural Complexity. J. Brockmann, C. St. Mary, J. Ponciano - University of Florida	Temporal and spatial differentiation in microhabitat use in two closely related treefrog species. Y. JANG(1), A. Borzée(2) - (1)Ewha University, (2)Seoul National University	Rapid reproductive character displacement in male green (<i>Hyla cinerea</i>) and barking treefrogs (<i>H. gratioiosa</i>). N. Gordon, M. Ralph, K. Stratman - University of Evansville	Sources of Noise-Induced Error in Animal Communication. J. Tanner, M. Bee - University of Minnesota
11:30		Effects of Forced Rensetting on Long-term Management Strategies in the Whooping Crane (<i>Grus americana</i>). M. McPhee(1), N. McPhee(2) - (1)University of Wisconsin Oshkosh, (2)University of Minnesota Morris	A new case of social parasitism in four ant species and its' effect on colony personality and interactions. S. Bengston, C. Reabelling - University of Rochester	Acoustic partitioning in a rodent community. B. Pasch - Department of Biological Sciences, Northern Arizona University
11:45		Visual Acuity and Perception in Fish: the Effects of Morphology, Environment, and Ecology. E. Caves(1), N. Brandley(2), S. Johnsen(1) - (1)Duke University, (2)Colorado College	Keith selection: a Hamilton's rule for non-relatives. D. Queller - Washington University in St. Louis	
Time		Rollins Dining Hall 1	On Your Own	
12:00 pm - 1:30 pm		Education Committee Meeting	Lunch on your own	
Time		Physics 126	Physics 114	Tucker 18
1:30 pm - 3:00 pm	Monsanto Auditorium Past-President's Symposium Moderator: Regina Macedo	Behavioral Plasticity Moderator: Matthew E. Nielsen	Sexual Selection & Conflict Moderator: Allison M. Welch	Communication Moderator: Jeffrey R Lucas
1:30	Breeding Aggregations in Horseshoe Crabs: Causes of Structural Complexity. J. Brockmann, C. St. Mary, J. Ponciano - University of Florida	Plasticity Resulting from Courtship Experience Impacts Sexual Selection in Threespine Sticklebacks. E. Weigel(1, 2), J. Boughman(1) - (1) Michigan State University, (2)Spelman College	The hidden costs of sexually selected weapons in a territorial insect, <i>Leptoscelis tricolor</i> . U. Somjee - University of Florida	Assessing the effect of season and habitat on complex call propagation and usage in two Parid species. A. Katipadath(1), T. Freeberg(2), K. Sieving(3), J. Lucas(1) - (1) Purdue University, (2)University of Tennessee, (3)University of Florida
1:45		Does plasticity in collective motion depend on social context more than the physical context. P. Suriyampola, A. Inuri-Tucker, A. Enriquez, D. Shelton, E. Martins - Indiana University	Relationships Between Whole-Organism Performance, Morphology and Behavior in Spiders. R. McGinley, E. Hehels - School of Biological Sciences, University of Nebraska-Lincoln	Do <i>Temnothorax rugatulus</i> recruiters inform nestmates about the quality of the target. J. Cho, S. Pratt - Arizona State University
2:00	Breeding aggregations in the blue-black grassquit: a test of the hidden lek hypothesis. R. Macedo(1), L. Manica(2), J. Graves(3), J. Podós(4) - (1) Universidade de Brasília, (2)Universidade Federal do Paraná, (3)St. Andrews University, (4)University of Massachusetts	Prior Social Environment Can Influence Current Social Interactions and Reproductive Success. W. Sheenberger, D. Jaccson, K. Fowler-Finn - Saint Louis University	Females can distinguish between males with reliable and unreliable signals. V. Wagner, A. Wegehaupt - University of Nebraska	Encoding and decoding alarm calls in multispecies communication networks. J. Morano(1), E. Greene(2), A. Billings(2), P. Little(3), C. Clark(4), Y. Shiu(4) - (1)Macquarie University, (2)Cornell University, (3)Cornell University, (4)Pat Little Consulting, (4)Bioacoustics Research Program, Cornell Lab of Ornithology, Cornell University
2:15		The effects of the developmental environment on behavioral-morphological integration. N. Dochtermann, C. Garrison, M. Bernal, R. Royaute - Department of Biological Sciences North Dakota State University	Rapid evolution following a shift in sexual selection in an invasive mammal. M. Owen(1, 2), D. Lantini(1, 2) - (1)Queens College, CUNY, (2)The Graduate Center, CUNY	The Dynamics of Information Flow in Chickadees and Titmice. J. Lucas(1), M. Wigren(1), N. Lancaster(1), S. Muel(1), K. Sieving(2), T. Freeberg(3) - (1)Purdue University, (2)University of Florida, (3)University of Tennessee
2:30	Presidential Symposium Closing	Color Plasticity Alters Thermoregulatory Behavior in <i>Battus philenor</i> Caterpillars by Changing the Cue Received. M. Nielsen, D. Papaj - University of Arizona	Both genes and environment influence chorus participation in gray treefrogs, <i>Hyla versicolor</i> . A. Welch(1), M. Smith(2), S. Humfield(2), H. Gerhardt(2) - (1) College of Charleston, (2)University of Missouri	The Coevolution of Courtship Display Behavior and Morphology in <i>Drosophila</i> . P. Roy, J. Gleason - University of Kansas
2:45			Prolonged effects of contraception management on male (<i>Egusus cabalus</i>) behavior and reproductive physiology. C. Nunez(1), J. Adelman(1), H. Carr(1), C. Knight(2), D. Rubenstein(2) - (1)Iowa State University, (2) Princeton University	

Time	On Your Own
3:00 pm - 3:30 pm	Walk to Missouri Theater
Time	Downtown Columbia/Missouri Theater
3:30 pm - 4:00 pm	Afternoon Snacks
Time	Downtown Columbia/Missouri Theater
4:00 pm - 5:30 pm	Award Presentations and Presidential Plenary: Context matters: How history, physiology, social partners, and habitats shape animal behavior. Emilia Martins (Indiana University-Bloomington) / ABS President
Time	Memorial Union
7:00 pm - 9:00 pm	BANQUET (ticketed event)

POSTER SESSION

MONDAY, AUGUST 1ST - 7:30 - 10:00 PM

PARASITES AND BEHAVIOR: OLD IDEAS AND NEW

#	POSTER
P1 Founders Competition	Forgetting and the Value of Social Information B. Abts, A. Dunlap - <i>University of Missouri- Saint Louis</i>
P2 Founders Competition	Niche Partitioning by Octopuses in a South Florida Shallow Habitat C. Bennice(1), W. Brooks(1), R. Hanlon(2), A. Rayburn(3) - (1) <i>Florida Atlantic University</i> , (2) <i>Marine Biological Laboratory</i> , (3) <i>River Partners</i>
P3 Founders Competition	Getting a new shell, from whom? L. Burciaga, K. Kruesi, G. Alcaraz - <i>Universidad Nacional Autónoma de México</i>
P4 Founders Competition	Aggression is better explained by sex than context J. Caceres(1), P. Suriyampola(2), D. Sykes(3), A. Iruri-Tucker(4), E. Martins(5) - (1) <i>Indiana University</i> , (2) <i>Indiana University</i> , (3) <i>Indiana University</i> , (4) <i>Indiana University</i> , (5) <i>Indiana University</i>
P5 Founders Competition	A female perspective: do body size and territory ownership predict contest outcome in female anoles? E. Cook, M. Leal - <i>University of Missouri</i>
P6 Founders Competition	Developing a new standard for defining sleep in honey bees using response thresholds N. Giebink, T. Harrison, B. Klein - <i>University of Wisconsin La Crosse</i>
P7 Founders Competition	Defining 'Complexity' in Gelada Vocal Sequences M. Gustison(1), E. Tinsley Johnson(2), P. Fashing(3,4), N. Nguyen(3,4), T. Bergman(1,5) - (1) <i>Department of Psychology, University of Michigan</i> , (2) <i>Department of Anthropology, University of Michigan</i> , (3) <i>Department of Anthropology, California State University</i> , (4) <i>Centre for Ecology and Evolutionary Synthesis, Department of Biosciences, University of Oslo</i> , (5) <i>Department of Ecology and Evolutionary Biology, University of Michigan</i>
P8 Founders Competition	Personality and learning in Western Scrub-Jays and Mexican Jays K. McCune(1), R. Ha(1), P. Jablonski(2), S. Lee(2) - (1) <i>Psychology Department, University of Washington</i> , (2) <i>Biological Sciences, Seoul National University</i>
P9 Founders Competition	From Virgins to Fathers: Characterization of the Onset of Paternal Behavior in the Algerian mouse, <i>Mus spretus</i> D. Premathilake(1), P. Campbell(2) - (1) <i>Oklahoma State University</i> , (2) <i>Oklahoma State University</i>
P10 Founders Competition	Infrared thermography, a novel method to measure emotional states in Barbary macaques (<i>Macaca sylvanus</i>) L. Robbins, J. Lehmann - <i>University of Roehampton</i>
P11 Founders Competition	The Use of Video for Non-Human Viewers: Video Play-Back in Darter (<i>Percidae: Etheostoma</i>) Visual Space N. Roberts, T. Mendelson - <i>University of Maryland Baltimore County</i>
P12 Founders Competition	Influences of sunrise and morning light on behavior of sympatric New World primates M. Snodderly(1,2), K. Ellis(1,2), A. Link(2,3), E. Fernandez-Duque(4), S. Lieberman(1,2), S. Alvarez(5), L. Abondano(1,2), A. Di Fiore(1,2) - (1) <i>University of Texas at Austin</i> , (2) <i>Fundación Proyecto Primates</i> , (3) <i>Universidad de Los Andes</i> , (4) <i>Yale University</i> , (5) <i>Universidad Regional Amazónica IKIAM</i>
P13 Founders Competition	Trade-offs Drive Dynamic Investment in Net-casting Spider Neuroanatomy J. Stafstrom(1), E. Hebets(1), P. Michalik(2) - (1) <i>University of Nebraska - Lincoln</i> , (2) <i>University of Greifswald</i>
P14 Founders Competition	Cold-blooded cognition: A field based approach to study behavioral flexibility in <i>Anolis sagrei</i> L. Storks, M. Leal - <i>University of Missouri</i>
P15 Genesis Competition	The Relationship Between Imitation and Affiliation in Captive Rhesus Macaques (<i>Macaca mulatta</i>) J. Anderson, E. Kinnally - <i>University of California Davis</i>
P16 Genesis Competition	The Role of Visual Signals in <i>Drosophila biarmipes</i> Courtship A. Arquilla(1), P. Roy(2), J. Gleason(2) - (1) <i>College of Wooster</i> , (2) <i>University of Kansas</i>
P17 Genesis Competition	Auditory frequency sensitivity of northern saw-whet owls (<i>Aegolius acadicus</i>) J. Beatini, G. Proudfoot, M. Gall - <i>Vassar College</i>
P18 Genesis Competition	Effects of deer browsing on sound propagation in northeastern temperate forests T. Boycott, J. Gao, M. Gall - <i>Vassar College</i>
P19 Genesis Competition	Stress Coping Responses of African Giant Pouched Rats E. Cadet, D. Lee, A. Ophir - <i>Cornell University</i>
P20 Genesis Competition	The Effects of Light and Height on the Feeding Preferences of Common Vampire Bats S. Chertoff, S. Margulis - <i>Canisius College</i>
P21 Genesis Competition	The effects of 17 α-ethynylestradiol (EE₂) on the mating behavior of <i>Betta splendens</i> P. D'Ortona(1), J. Schlueter(1), V. Jahr(1), J. McMahon(2), M. Bealor(1) - (1) <i>Rowan University</i> , (2) <i>Villanova University</i>
P22 Genesis Competition	Disney's Animated Animals: A Potential Source of Opinions and Facts? S. Eidt, K. Collie - <i>Malone University</i>
P23 Genesis Competition	Larger Groups of Zebrafish (<i>Danio rerio</i>) Trigger a Stronger Response to Visual Stimuli A. Enriquez(1), G. Blackwell(2), P. Suriyampola(2), E. Martins(2) - (1) <i>New Mexico State University</i> , (2) <i>Indiana University</i>
P24 Genesis Competition	Neophobic responses and problem-solving abilities of raccoons (<i>Procyon lotor</i>) in captivity R. Fanelli(1), S. Daniels(1), A. Gilbert(2), S. Benson-Amram(1) - (1) <i>University of Wyoming</i> , (2) <i>National Wildlife Research Center/Animal and Plant Health Inspection Service University of Wyoming</i>
P25 Genesis Competition	Does tail autotomy by females and their potential mates influence female choice in salamanders? A. Farmer, A. Mathis - <i>Missouri State University</i>
P26 Genesis Competition	Worker size variation in the monomorphic species <i>Temnothorax rugatulus</i> G. Gudenkauf, A. Dornhaus, D. Charbonneau - <i>Social Insects Laboratory, University of Arizona</i>
P27 Genesis Competition	Behavioral Changes in Relocated Elephants from Swaziland N. Hermansen - <i>Hillsborough County Community College</i>
P28 Genesis Competition	Gene expression and parenting behavior in male threespined stickleback <i>Gasterosteus aculeatus</i> S. Jin, S. Bukhari, A. Bell - <i>University of Illinois</i>
P29 Genesis Competition	CLIMATE CHANGE'S EFFECTS ON THE REPRODUCTIVE SUCCESS OF ASH-THROATED FLYCATCHERS AND MOUNTAIN BLUE-BIRDS A. Johnson, M. Young - <i>Colorado Mesa University</i>
P30 Genesis Competition	Responses of Carolina chickadees and tufted titmice to snake body orientation W. Johnson, S. Kyle - <i>University of Tennessee</i>
P31 Genesis Competition	Is ear function necessary for vibration-cued hatching in red-eyed treefrogs? S. Kim, J. Jung, S. Perez-Arias, J. McDaniel, K. Warkentin - <i>Boston University</i>
P32 Genesis Competition	The Effects of Dietary Quality on Bubble Nest Size and Female Mate Preferences in <i>Betta splendens</i> V. Kuhnel(1), K. Revicki(1), M. Mondelli(2), M. Bealor(1) - (1) <i>Rowan University</i> , (2) <i>Texas State University</i>
P33 Genesis Competition	Environmental concentrations of metformin exposure affect behavior in <i>Betta splendens</i>. A. Langone(1), S. Dadwal(1), K. Marcelonis(2), J. Rozen(1), M. Shanley(1), S. Shahin(1), J. Zanani(2), C. MacLaren(1), R. MacLaren(1) - (1) <i>Merrimack College</i> , (2) <i>Northern Essex Community College</i>
P34 Genesis Competition	Using active learning techniques to teach Animal Behavior to freshman students A. Lenzo, K. Thorington, S. Viscido - <i>Winston-Salem State University</i>
P35 Genesis Competition	Quantity/quality of available mates alters female mating behavior and investment in Pacific field crickets. F. Lierheimer, R. Tinghitella - <i>University of Denver</i>

POSTER SESSION

P36	Effects of Crowd Volume and Keeper Presence on Stereotypic Pacing of Mexican Grey Wolves (<i>Canis lupus baileyi</i>) M. MacDonald, H. Zimble-Delorenzo - <i>Alfred University</i>
Genesis Competition	
P37	A first description of nest behavior in wild Red-and-Green Macaws (<i>Ara chloropterus</i>) C. Meyer(1), J. Owen(1), M. Fonseca de Oliveira(2), D. Fragaszy(1) - (1)University of Georgia, (2)Universidade Aberta do Piaui
Genesis Competition	
P38	Manual dexterity and postural correlates in wild bearded capuchin monkeys (<i>Sapajus libidinosus</i>) L. Milburn, C. Jones, D. Fragaszy - <i>University of Georgia</i>
Genesis Competition	
P39	Behavior of zoo visitors and their attitudes towards zoo animals S. Muller(1), K. Cunningham(1), S. Kanouse(1), R. Strasser(1), J. Pratte(1,2) - (1)University of Nebraska Omaha, (2)Henry Doorly Zoo
Genesis Competition	
P40	Sex Differences in Anxiety in Golden Hamsters (<i>Mesocricetus auratus</i>) S. Mullinax, E. Creery, C. Donels, M. McDonough, S. Larimer Bousquet - <i>Wartburg College</i>
Genesis Competition	
P41	Investigating Maternal Styles in Western Lowland Gorillas E. Musik, S. Margulis - <i>Canisius College</i>
Genesis Competition	
P42	Examining the Effects of Parasitism on Female Mate Choice and Copulation Duration D. Nance, J. Hamel - <i>Elon University</i>
Genesis Competition	
P43	Parental Control of Offspring Phenotype through Variation in Ecdysteroid Hormones D. Nondorf, K. Crocker, E. Tibbetts - <i>University of Michigan</i>
Genesis Competition	
P44	The Effect of the Earth's Magnetic Field on the Resting Position of <i>Canis familiaris</i> A. Onofrio - <i>University of New Hampshire</i>
Genesis Competition	
P45	Effect of Population Density on Sexual Selection in the Cabbage White Butterfly T. Pan, M. Kobiela, E. Snell-Rood - <i>University of Minnesota- Twin Cities</i>
Genesis Competition	
P46	Effect of a Novel Enrichment Item to Elicit Natural Behaviors in Captive Meerkats K. Patterson, L. Woods, K. Parker, B. Williams, O. Anderson, K. Allen, J. Sayr, L. Webster, S. Weiss - <i>University of Puget Sound</i>
Genesis Competition	
P47	Of Noise and Nests: Effects of anthropogenic noise on settlement patterns in <i>Tachycineta bicolor</i> L. Poon, A. Injaian, G. Patricelli - <i>University of California, Davis</i>
Genesis Competition	
P48	Conspicuousness of band-winged grasshoppers stationary and in flight B. Salazar, N. Brandley - <i>Colorado College</i>
Genesis Competition	
P49	Estimating population density, seasonal variation, and habitat preference for carnivores in the Okavango Delta M. Sosnowski(1,3), M. Nguyen(2,3), S. Morgan(2,3) - (1)Loyola University of Chicago, (2)University of Illinois Urbana Champaign, (3)Wildlife ACT
Genesis Competition	
P50	Do size and sex have an effect on the visual acuity of the fiddler crab <i>Uca pugnax</i>? N. Weber, B. PetersonWood, N. Brandley - <i>Colorado College</i>
Genesis Competition	
P51	Causes & consequences of high ectoparasite loads in alpha Lance-tailed Manakins (<i>Chiroxiphia lanceolata</i>) K. Wilson, E. DuVal - <i>Florida State University</i>
Genesis Competition	
P52	The Effect of Feeding Enrichment on Dogs in an Animal Shelter L. Davis(1), P. Reid(2) - (1)University of Illinois, (2)ASPCA
Applied animal behavior	
P53	A Survey of Animal Shelters and their Frequency of Use of Enrichment to Enhance the Welfare of Kenneled Dogs S. Fornes(1,2) - (1)American College of Applied Science, (2)ACE-Academy of Canine Enrichment
Applied animal behavior	
P54	Personality is correlated with target training acquisition in horses (<i>Equus caballus</i>) R. Foster(1,2), K. Wallach(2) - (1)University of Puget Sound, (2)University of Washington
Applied animal behavior	
P55	A Subjective Cat Temperament Assessment Results in Four Independent Dimensions D. Ha(1), J. Ha(1,2) - (1)Animal Behavior Associates of WA, (2)University of Washington
Applied animal behavior	
P56	Persistence of Food Guarding Across Conditions of Free and Scheduled Feeding in Shelter Dogs S. Kapla(1), J. Lyle(2), S. da Silva(3), M. Maxwell(4) - (1)Northern Michigan University, (2)Lucas County Canine Care & Control, (3)Columbus State University, (4)Pet Behavior Change, LLC
Applied animal behavior	
P57	HORSES WORKING IN THERAPEUTIC RIDING PROGRAMS: CORTISOL AND BEHAVIOR STRESS INDICATORS T. Parker(1), R. Johnson(2), P. Johnson(3), J. Marzolf(4), C. Vogelweid(5), J. Bibbo(6) - (1)University of Missouri, (2)University of Missouri, (3)University of Missouri, (4)University of Missouri, (5)University of Missouri, (6)University of Missouri
Applied animal behavior	
P58	Dung Removal and Physiological Condition of <i>Onthophagus incensus</i>: Diet and Parasite Pressure Effect M. Servin-Pastor(1), O. Lozano-Sanchez(2), A. Jácome-Hernández(2), R. Portela-Salomão(2), F. Cuevas-Caselin(2), M. Favila(2), D. González-Tokman(2) - (1)Universidad Nacional Autónoma de México, (2)Instituto de Ecología, A.C.
Applied animal behavior	
P59	A Biologist's Guide to Acoustic Location Analysis Y. Shiu(1), E. Greene(2), J. Morano(3), A. Billings(2), D. Hawthorne(1), C. Clark(1) - (1)Bioacoustics Research Program, Cornell Lab of Ornithology, Cornell University, (2)Division of Biological Sciences, University of Montana, (3)Macaulay Library, Cornell Lab of Ornithology, Cornell University
Applied animal behavior	
P60	De novo assembly and annotation of the neural transcriptome in a <i>Neoconocephalus katydid</i> A. Scharnagl, K. Frederick, J. Schul - <i>University of Missouri</i>
Behavior genetics/genomics	
P61	The effect of rearing environment on <i>Gryllus rubens</i> mating calls O. Beckers, K. Murphey, N. Norman, J. Pease - <i>Murray State University</i>
Behavioral pasticity	
P62	The link between predator-induced defenses and behavior in cricket frog tadpoles M. Bliss(1), L. Beaty(2), B. Luttbeg(2) - (1)Sewanee: University of the South, (2)Oklahoma State
Behavioral pasticity	
P63	Differences in response to disturbance by two species of terrestrial salamanders: A field test B. Dalton, T. Reeder, R. Bortosky, A. Mathis - <i>Missouri State University</i>
Behavioral pasticity	
P64	Corvid personality: exploring the behavioral variation present within and among individuals in three species J. Duque, J. Stevens - <i>University of Nebraska</i>
Behavioral pasticity	
P65	Exploration as a personality trait: differences between male and female zebra finches? K. Faust, M. Goldstein - <i>Cornell University</i>
Behavioral pasticity	
P66	To Sneak Or Not To Sneak: Behavioral Plasticity and Phenotypic Optima M. Liotta(1), M. Morris(1), D. Robinson(1), S. Lyons(2) - (1)Ohio University, (2)University of North Carolina Chapel Hill
Behavioral pasticity	
P67	Male but Not Female Aggression Negatively Correlates with Infant Care in <i>Callithrix jacchus</i> T. Melber(1), K. Clancy(1,2,3), R. Stumpf(1,2,4) - (1)Department of Anthropology, University of Illinois, Urbana-Champaign, (2)Program in Ecology, Evolution and Conservation, University of Illinois, Urbana-Champaign, (3)Beckman Institute for Advanced Science & Technology, University of Illinois, Urbana-Champaign, (4)Institute for Genomic Biology, University of Illinois
Behavioral pasticity	
P68	The mix matters: Effects of chorus composition on plasticity in mate preferences D. Neelon, G. Höbel - <i>UW-Milwaukee</i>
Behavioral pasticity	
P69	Stimulus Valence Influences Auditory Discrimination Training Speed and Profile in Finches K. Anand, P. Nealen - <i>Indiana University of Pennsylvania</i>
Cognition & learning	
P70	Effects of Resource Complexity on Foraging Sampling and Constancy in the Bumble Bee <i>Bombus impatiens</i> M. Austin, P. Horack, K. Janssen, A. Dunlap - <i>University of Missouri - St. Louis</i>
Cognition & learning	
P71	Remarkably resilient learning and memory phenotype in the presence of potentially biasing sensory cues V. Baggett, A. Mishra - <i>University of Missouri</i>
Cognition & learning	
P72	Foraging female cowbirds assess relative value of personal and social information H. Davies, D. White - <i>Wilfrid Laurier University</i>
Cognition & learning	
P73	Cognitive Bias Assessment for Mice: Sex Differences E. Hill, L. Hunt, V. Caputo, A. Mendonca - <i>University of Detroit Mercy</i>
Cognition & learning	
P74	Strength of Innate Preference Affects Value of Learned Information in Bumblebees, <i>Bombus impatiens</i> C. Hoffmann, S. Madani, A. Dunlap - <i>University of Missouri - Saint Louis</i>
Cognition & learning	

POSTER SESSION

Cognition & learning	P75 The Effect of Past Competition on Future Resource Choice by Gerbils J. Jenkins, W. Keaton, A. Altenbern, D. Jackson, S. Neill, A. Person - <i>Mercer University</i>
Cognition & learning	P76 To sample, or not to sample? Resource use and innate bias in <i>Drosophila melanogaster</i> I. Mills, A. Dunlap - <i>University of Missouri St Louis</i>
Cognition & learning	P77 Does Size Matter?: An Investigation of domestic dogs' ability to choose larger quantity through smell. B. Panas, A. Hughes - <i>Randolph-Macon College</i>
Cognition & learning	P78 Familiarity and Two-choice Behavior in the Horse (<i>Equus caballus</i>) D. Pick, K. Smith, M. Miramontes, L. Lynch - <i>Purdue University Northwest</i>
Cognition & learning	P79 Mechanisms of Social Learning in Three-Spined Sticklebacks R. Trapp, A. Bell - <i>University of Illinois</i>
Cognition & learning	P80 Stress and cognition: an improvement on a new learning assay K. Wallace, R. Etheredge, M. Armstrong, M. Cummings - <i>University of Texas at Austin</i>
Cognition & learning	P81 Facilitated social learning in red crossbills M. Wurtz, J. Cornelius - <i>Eastern Michigan University</i>
Cognition & learning	P82 Quantitative discrimination in domestic dogs R. Yankelevitz, K. Barker - <i>University of Wisconsin - Whitewater</i>
Cognition & learning	P83 To exploit or to explore: adaptive modulation of search behavior in foraging bees A. Young, K. Miner, F. Dyer - <i>Michigan State University</i>
Communication	P84 Changes in parental responsiveness to immature song affect learning in juvenile zebra finches S. Carouso, M. Goldstein - <i>Cornell University</i>
Communication	P85 Comparing display architecture across social contexts in the amblypygid <i>Paraphrynus laevisfrons</i> T. Corey, E. Hebets - <i>University of Nebraska-Lincoln</i>
Communication	P86 Assessment of distance-from-source effects on spectral classification of bird calls in natural environments J. Davis(1), K. Sieving(2), J. Lucas(3), T. Freeberg(1) - (1)University of Tennessee, (2)University of Florida, (3)Purdue University
Communication	P87 Sex differences in singing behavior of a tropical ovenbird across breeding and non-breeding stages P. Diniz(1), E. Silva Junior(1), M. Webster(2), R. Macedo(1) - (1)Universidade de Brasilia, (2)Cornell University
Communication	P88 Developmental Diet and Call Reliability in Crickets C. Garrison, N. Dochtermann - <i>North Dakota State University</i>
Communication	P89 <i>Achroia grisella</i> as a line following robot: a link between tympanal structure and phonotactic walking J. Gibson(1), A. Reid(1), J. Windmill(1), M. Greenfield(2) - (1)University of Strathclyde, (2)University of Tours
Communication	P90 Repeated evolution of incomplete ear development in acoustically communicating toads K. Hoke, M. Womack, J. Stynoski - <i>Colorado State University</i>
Communication	P91 Call timing preferences in closely related species of gray treefrogs S. Humfeld(1), J. Schwartz(2), V. Marshall(3) - (1)University of Missouri, (2)Pace University, (3)University of Scranton
Communication	P92 Structural variation in the 'chick-a-dee' call of bridled titmice (<i>Baeolophus wollweberi</i>) H. Jung, T. Freeberg - <i>The University of Tennessee</i>
Communication	P93 Grey Squirrel (<i>Sciurus carolinensis</i>) Tail Flicking in Relation to Possession of Resources R. Malin - <i>University of Wisconsin - Oshkosh</i>
Communication	P94 The Effects of Habitat on the Courtship Signal Active Space of Two Wolf Spider Species E. Pickett, G. Uetz - <i>University of Cincinnati</i>
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Pandit, Meelyn M.	WED	8:30 AM	Behavioral Plasticity
Pasch, Bret	WED	11:45 AM	Communication
Perry, Anna C.	SUN	10:15 AM	Simulation/modelling and education
Peterson, Elizabeth	SUN	11:45 AM	Sexual selection & conflict
Peterson, Melissa	TUE	11:45 AM	Predation & Foraging
Phelps, Steve	MON	11:00 AM	Behavioral Genomics in Non-Model Systems Symposium
Phillips Buttner, Alicia	MON	4:00 PM	Applied Animal Behavior
Podos, Jeff	TUE	5:30 PM	New Frontiers in Animal Communication Symposium
Poo, Sinlan	WED	9:00 AM	Predation & Foraging
Pravosudov, Vladimir	TUE	10:45 AM	Cognition & Learning
Prokuda, Alexandra Y.	SUN	3:00 PM	Mating/breeding systems
Protopopova, Alexandra	MON	2:45 PM	Applied Animal Behavior
Pruitt, Jonathan N.	WED	10:30 AM	Past-President's Symposium
Ptacek, Margaret	TUE	5:00 PM	New Frontiers in Animal Communication Symposium
Ptacek, Margaret B	TUE	10:00 AM	New Frontiers in Animal Communication Symposium
Puglis, Holly J.	MON	11:45 AM	Applied Animal Behavior
Queller, David	WED	11:45 AM	Social Behavior + Social Evolution
Reichert, Michael S.	MON	3:30 PM	Communication
Reid, Pamela J	MON	11:30 AM	Applied Animal Behavior
Riehl, Christina	WED	8:30 AM	Past-President's Symposium
Rivera-Cáceres, Karla D.	TUE	3:00 PM	Allee Symposium
Robertson, Joshua	SUN	1:30 PM	Mating/breeding systems
Rodriguez, Rafael L.	WED	9:00 AM	Behavioral Plasticity
Ronald, Kelly L	SUN	11:45 AM	Sexual selection & conflict
Rosenthal, Malcolm F	SUN	11:45 AM	Simulation/modelling and education
Rosvall, Kimberly A	SUN	4:15 PM	Behavioral plasticity
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Russell, Brandon J	SUN	10:00 AM	Predation & foraging
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Sadowski, Christy L.	MON	12:00 PM	Applied Animal Behavior
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Scheel, David	TUE	10:15 AM	Predation & Foraging
Schulz, David J	MON	10:00 AM	Behavioral Genomics in Non-Model Systems Symposium
Schuppe, Eric R.	MON	3:30 PM	Social Behavior + Social Evolution
Shaw, Kerry L.	TUE	11:45 AM	New Frontiers in Animal Communication Symposium
Shew, Justin J.	TUE	5:00 PM	Parental Care
Shoenberger, William	WED	2:00 PM	Behavioral Plasticity
Sieving, Kathryn	TUE	10:00 AM	Predation & Foraging
Sirof, L	SAT	3:00 PM	Teaching Workshop
Sivalingham, Sen-thurran	WED	11:00 AM	Communication

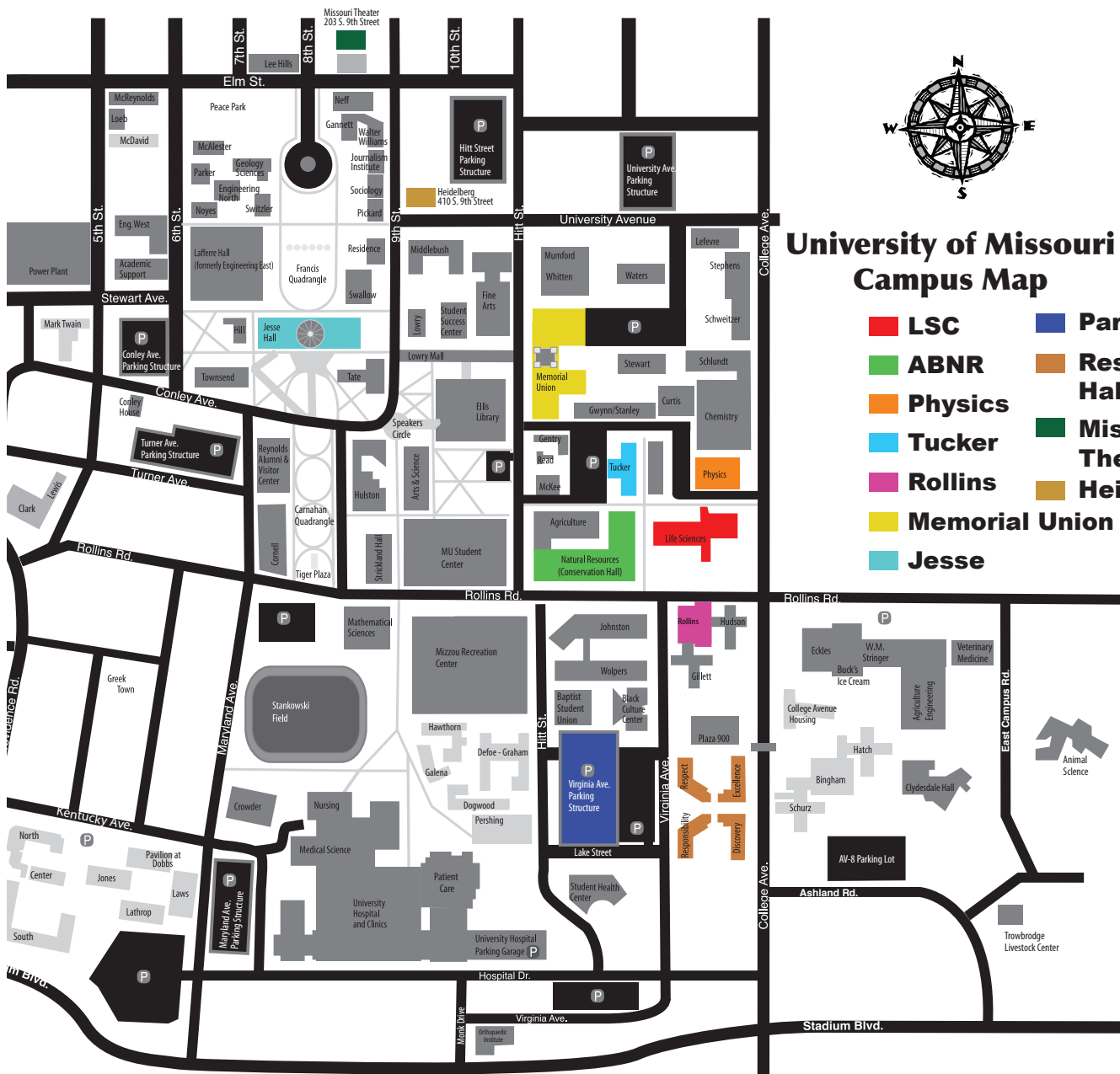
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Smith, Adam R	WED	11:00 AM	Social Behavior + Social Evolution
Smith, K-lynn	WED	10:00 AM	Conservation
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Solomon, Nancy G.	WED	11:30 AM	Past-President's Symposium
Somjee, Ummat	WED	1:30 PM	Sexual Selection & Conflict
Stanton, Lauren/A	TUE	11:30 AM	Cognition & Learning
Steck, Meredith K	SUN	4:45 PM	Behavioral plasticity
Stein, Laura R.	TUE	2:00 PM	Behavioral Genetics & Genomics
Steinberg, David	SUN	4:30 PM	Communication
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Stoehr, Andrew	MON	4:15 PM	Communication
Stoffer, Brent	TUE	4:30 PM	Allee Symposium
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ter Hofstede, Hannah M.	WED	10:30 AM	Communication
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Yamamoto, Maria E.	WED	11:00 AM	Past-President's Symposium
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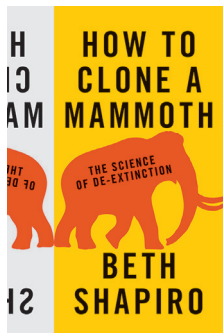
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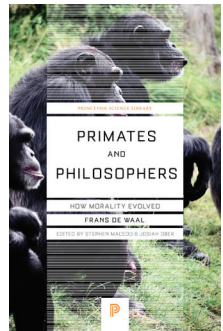


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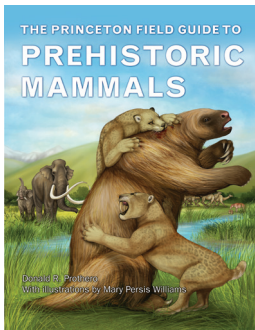


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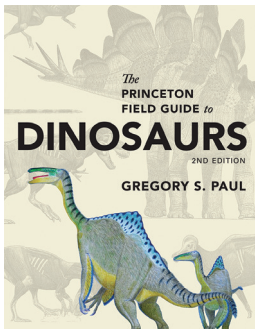
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