



# ANIMAL BEHAVIOR BULLETIN

## SPRING 2015

### LETTER FROM THE DIRECTOR



Dear CISAB members and friends,

The last year has been particularly momentous for CISAB.

After over twenty years of productive CISAB activities at 402 N. Park Ave, we discovered that the university planned to demolish or move all of the houses on CISAB's block to make way for a new house for the Phi Gamma Delta fraternity (see p. 3). We have many fond memories of gatherings and events at the old house, and we will miss it. However, the new CISAB location across the street at 409 N. Park Avenue is proving to be an excellent replacement. Like our old house, the new house is architecturally interesting and has lots of character. The university renovated the house to make it wheelchair-accessible. The house has ample office space for CISAB's staff and working space for students. It has a seminar room that has been furnished with new modular tables and chairs that make it easy to reconfigure the room for meetings, classes, and seminars. We also have a new A/V system that includes a SMART board that can be used for presentations, teaching, or video conferencing. The Rowland library is now housed in a combined resource and conference room on the 2nd floor of the house, and Bill Timberlake generously donated his books on animal behavior to create an impressive combined collection that fills the shelves in the Rowland Resource and Conference Room as well as the 2nd floor landing. If you haven't been there yet, I encourage you to visit the new house.

CISAB said goodbye to Rose Stewart, who expertly managed the CISAB Core Laboratory and to Robert Conrick. Rose moved to Michigan, and Robert is moving on to graduate school at the University of Washington in Seattle. We miss both of them and wish them well. In February, we welcomed back Christy Bergeon Burns as CISAB's new Lab Director. Christy earned her PhD with Ellen Ketterson and Greg Demas before doing her post-doctoral work at Louisiana State University. Her expertise in molecular and endocrine techniques is a great resource for the users of the CISAB Lab. We are lucky to have her back, and the CISAB Lab is thriving under her direction. Frank (Buddy) Morris is CISAB's new web designer and office assistant. Buddy holds an MFA degree, and has extensive experience in programming, photography, and design. In the

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### Save the Date!

Please join us for the  
2016 Animal Behavior  
Conference  
March 31-April 2

Contact us at  
[cisab@indiana.edu](mailto:cisab@indiana.edu)

short time he has been working with us, his skills have already proved invaluable in revising tools on our website and putting the final touches on this issue of the Bulletin! If you haven't met him yet, please stop by the CISAB house and welcome Buddy.

This year, CISAB took advantage of IU's history and faculty expertise in animal behavior to introduce the first undergraduate major in animal behavior at a major research university in the U.S. (p. 4). The popularity of this major has exceeded all of our expectations. In our first year alone, sixty-one students have subscribed to the major. IU graduated its first two students with the Animal Behavior B.S. in May, and four more are set to graduate later this year. The major is being accompanied by expansion of CISAB's internship program and by new undergraduate course offerings.

CISAB's annual spring Animal Behavior Conference (p. 10) was yet again a success and set records for attendance (nearly 300 registrants from 50 institutions in 20 states) and presentations (over 100 talks and posters). Highlights of the meeting included a topical symposium on Animal Communication with the featured symposium talk by Jim Hare, presentation of the CISAB Exemplar Award to Jim Goodson and David Crews, with Crews giving the keynote seminar for the conference, and a truly inspiring memorial symposium honoring Jim Goodson's career.

CISAB suffered a huge loss when our dear friend and colleague, Jim Goodson, succumbed to cancer last August. Jim was one of CISAB's most active members. Jim's larger-than-life personality was exceeded only by the excellence of his science. The breadth of his impact on CISAB, the field of behavioral neuroendocrinology, and his students and colleagues was apparent in the number of Jim's close colleagues that traveled to Bloomington for the symposium honoring him and in the genuinely touching atmosphere here during and after the symposium. We miss you, Jim!

I am writing this message on the last day of my directorship of CISAB. It has been a great honor to serve as CISAB's director. I want to thank the CISAB community for all of your support and for making CISAB such a vibrant organization. I feel truly lucky to have worked with such a talented, dedicated, and interactive staff, faculty, and students. I also feel fortunate that Cara Wellman will be taking over as CISAB Director starting tomorrow. I care deeply about CISAB. Stepping down as Director to have more time for my research program would have been a much more difficult decision had I not known that I would be passing the administration of CISAB to Cara. She not only has the the administrative experience to keep CISAB running smoothly, but also has a strong and genuine dedication to CISAB's goal of promoting interactions across departments. I have no doubt that CISAB will continue to grow under Cara's leadership. It has been a great honor to serve as CISAB's Director during such active times. The Center is thriving, and I am confident that Cara will inspire its development in new and exciting directions during the four years of her directorship.

G. Troy Smith  
June 30, 2015



# CISAB HAS A NEW HOME

After months of planning, CISAB has moved across the street from 402 N. Park Ave. to 409 N. Park Ave. The move happened in September 2014 and came several months after the University announced that several homes in the historic University Courts neighborhood – including CISAB’s building – would be relocated or demolished in order to build a new house for the Phi Gamma Delta “FIJI” fraternity. IU plans to build a new academic building on the site of the current “FIJI” home on 3rd Street. Five homes were moved and one demolished to make room for the new fraternity.



The new location is a beautiful two-story home with the same amenities that we enjoyed of the previous location. There is a conference room, full kitchen, reception area, and offices on the first floor. Thanks to the College of Arts and



*The first-floor conference room.*

Sciences and IU, CISAB’s first-floor seminar room is equipped with new modular furniture that allows it to be easily reconfigured for classes and meetings. A new, interactive SMART board has been installed in the first-floor seminar room. The new CISAB house was renovated to ensure wheelchair accessibility. The second floor of the house is home to our computer lab, the William J. Rowland Conference and Resource Room, and the director’s

office. Former CISAB director Bill Timberlake donated his extensive library of books on animal behavior to CISAB, which are now housed along with Bill Rowland’s collections in the William J. Rowland Conference and Resource Room. We hope that you will find the new location to be just as warm and welcoming as the previous building!



*The William J. Rowland Resource Room.*

# NEW ANIMAL BEHAVIOR MAJOR OFFERED AT IU

After several years of planning and preparation, a Bachelor of Science in Animal Behavior is now available to IU students!

The major makes IU one of only a handful of universities in the world to offer a bachelor's degree in animal behavior. The program is already attracting students from across the country. As many CISAB members are aware, the demand for animal behavior coursework at IU has increased over the past several years and the major will better meet the needs of undergraduates planning to pursue careers in this expanding field. Associate Professor Laura Hurley, who teaches Animal Behavior (BIOL-Z460), has seen the interest first-hand in her interactions with students. "In the past few years the interest in courses related to animal behavior has been steadily growing. A lot of the students who take the Animal Behavior class are very excited about the new major, not just because they love the subject, but also because they feel that it will really enhance their credentials as they start out in different animal-related professions". In the first year alone, 61 students have declared animal behavior as their major!

In addition to attracting incoming students to the Program in Animal Behavior at IU, this new major has led several undergraduates currently minoring in Animal Behavior or pursuing other degrees to reconsider their academic plans. Caitlyn Finton, a Junior French and Biology major, is planning to either switch majors or add the Animal Behavior major. "I have always been interested in biology in general, but my real passion is to learn about animals and their behavior", Caitlyn explains, "I am planning on going to graduate school to earn a PhD in animal behavior, so I am hoping that having a major in animal behavior will help me be better prepared in the future". Sophomore Edyth McEvilly, who had originally planned to pursue an independent major but will now pursue the B.S. in Animal Behavior, is equally happy about the degree. "I am extremely excited to see what the program and professors have to offer. I'm looking forward to more hands-on experiences and a more focused curriculum", she says.



Students learn about CISAB and the new major at the 2014 Major Fair in the IMU.

*(Animal Behavior Major, continued.)*

The Animal Behavior major includes courses in introductory sciences, mathematics, and ethics. Core coursework includes a foundational course in animal behavior (BIOL-Z 460), and introductory and advanced workshops in animal behavior (ABEH A-200 and A-400). The major also offers the opportunity to choose advanced coursework from three separate perspectives in animal behavior: evolution and ecology; mechanisms of behavior; and environmental, developmental, and cognitive approaches to behavior. Students will choose at least two formal laboratory courses and have the opportunity to pursue internships and/or independent research for credit. The degree requirements are interdisciplinary in nature and allow each student to tailor the curriculum to their specific interests and career goals.

The ABEH-A200/A400 courses are designed to bring new perspectives and ideas to students by hosting a series of guest experts throughout the semester. Spring 2015 saw a variety of speakers, including IU professors and professionals from the Indianapolis Zoo, Wildcare, Mad4MyDog Training, and the Indiana Department of Natural Resources. The course meets once per week and tries to bring a new expert to the class each week. Students interact with these experts, and learn about their fields, careers, and career opportunities.

Current students interested in switching to the Animal Behavior B.S. should contact the Biology advising department ([bioadv@indiana.edu](mailto:bioadv@indiana.edu)) or make an appointment at <https://starnet.indiana.edu/> to discuss strategies for completing the required coursework.

Additional information about the B.S. in Animal Behavior, including detailed course requirements, can be found online at:  
<http://www.indiana.edu/~animal/academics/underdegrees.php>





# ANIMAL BEHAVIOR COURSES OFFERED IN SPRING 2015:



A401/A501 -- Sensory Ecology taught by Dr. Laura Hurley, Department of Biology. This course examined how the sensory systems of animals function and evolve optimally in different environments. The guest speakers were Professor Aaron Rundus (West Chester University), who studies the evolution and ecology of communication signals in multiple sensory modalities (e.g. vibration, vision, sound) in wolf spiders and squirrels; Professor Tamra Mendelson (University of Maryland) who studies how colorful courtship signals evolve in fish; and Professor Martha Weiss (Georgetown University) who studies how the sensory systems of insects and their ability to learn evolve in response to characteristics of the plants they feed on and the predators that may eat them.

A401/A501 -- Animal Tool Use taught by Dr. Tom Schoenemann, Department of Anthropology. The focus of the course was on cognition and tool use in non-human primates. The guest speakers were Crickette Sanz, Washington University in St. Louis, 'Understanding Chimpanzee Tool Use in the Congo Basin'; Dave Morgan, Lester E. Fisher Center for the Study and Conservation of Apes at the Lincoln Park Zoo in Chicago, 'Chimpanzee Tool Technology in Congo's Changing Landscape'; Jill Pruetz, Iowa State University, 'Savanna chimpanzees at Fongoli, Senegal cope with a dry, hot and open environment'; and Linda Marchant, Miami University of Ohio, 'Primate Paths to Percussion'

A200/A400 -- This is a new course for animal behavior majors and was taught by Dr. G. Troy Smith and Adam Smith, Department of Biology. A200 is intended to be taken by newly declared Animal Behavior majors as sophomores and A400 is intended to be taken as a capstone course by seniors. The classes met together. Invited experts, who are either active IU researchers studying animal behavior from different perspectives, or representatives from outside organizations that work with animals, met with the class to discuss different ways to study behavior and how students can apply their knowledge in fields that work with animals in wild or domesticated settings. Students also attended the Animal Behavior Conference. Invited speakers included IU researchers (Greg Demas, Jeff Alberts, Emilia Martins, Greg Kohn) as well as outside experts (Chris Martin and Rob Shumaker, Indianapolis Zoo; Madalyn Moorman, Mad4MyDog Training; Mark Bennett, Indiana Department of Natural Resources).

## **A401/501 Offered in Fall 2015:**

The topic of this fall's A401/501 course is Mechanisms of Behavior: Microbiota, Physiology, and the Brain and it will be co-taught by Cara Wellman and Jeff Alberts (Dept. of Psychological and Brain Sciences) and Greg Demas (Biology). Animals host trillions of microorganisms that function symbiotically with the host's cells, tissues, and organ systems. Considerable evidence suggests that variation in these omnipresent microbial communities play an important role in health and sickness. However, surprising new data suggest that microbiota also exert a powerful influence on behavior, with variations in the gut microbiota influencing behaviors from predator-prey interactions to mate choice to social and emotional behaviors. This combined A501/A401 course will explore the relationships among variations in gut microbiota, immune function, and nervous system function, and how these factors may interact to influence behavior. Course format will include readings and student presentations, lecture, and invited speakers.

Invited speakers include Jay Lennon and Irene Newton (both here at IU), Staci Bilbo (Duke University), Mike Bailey (Ohio State University), Kevin Theis (University of Michigan), and Premysl Bercik (McMaster University).

Class meets at CISAB from 2:30-5:00pm on Thursdays; may also be additional meeting times. A401 Section # 33737. A501 Section # 33739.



# CISAB SUMMER RESEARCH & INTERNSHIP SCHOLARSHIP



This spring, CISAB began offering scholarships to undergraduate animal behavior majors to help defray the costs of these students attending a field course, participating in an internship, or gaining research experience over the summer. Two awards were made to Animal Behavior majors for their projects this summer.

**Leah Widdicombe** received a CISAB undergraduate scholarship to travel to South Africa during Summer 2015 as part of Dr. Michael Muehlenbein's service learning course "ONE HEALTH: An Indiana-South Africa Service Learning Experience". In South Africa, Leah is learning about the ecological and population factors responsible for the emergence and reemergence of infectious diseases in humans and nonhuman animals.

**Anna Sernau** received a CISAB undergraduate scholarship to work at the University of Southern Mississippi under the direction of Professors Heidi Lyn in the Department of Psychology and Stan Kuczaj at the Marine Mammal Behavior and Cognition Laboratory. Anna will be working on social cognition of dogs, dolphins, whales, and sea lions.



## CISAB'S FIRST *GRADUATING CLASS*



The program in Animal Behavior at Indiana University is pleased to announce the first cohort of students graduating with the Animal Behavior BS. As a complement to IU Bloomington's commencement ceremony, CISAB hosted a reception and ceremony for our first class of graduates and their friends and family. Among those graduating in May are IU students **Kelsey Phillipi** and **Alexandra Schimmel**. One student, **Dylan Forrer**, is anticipating graduating in August, and two students – **Jared Simoneaux** and **Leah Widdicombe** – anticipate graduating in December.

December 2015 graduate **Jared Simoneaux** says that he plans on pursuing a career in outdoor education in the southeastern US so he can enjoy the outdoors and teach others about animals. He tells CISAB:

*My favorite memory of the program so far is simply hearing and learning about all of the different options available with this degree from professionals during the ABEH200/400 class. Attending the Animal Behavior Conference was very interesting and fun as well. The program is great and since I've been here I have learned so much. The professors and advisors are all top notch and help every step of the way and have a genuine interest in your success. Not to mention when someone asks "what's your major?" and you reply "animal behavior" it sparks a really neat conversation. I am also very happy to be a part of the first cohort of graduates!*

May graduate **Kelsey Philippi** currently works as a wildlife technician for the Hardwood Ecosystem Experiment and continues her research in the lab of Dr. Kim Rosvall. In August, Kelsey will start working as a wildlife technician for the Division of Fisheries and Wildlife's Furbearer Biologist while she applies for graduate school. Her career goal is to become a wildlife biologist for the Department of Fish and Wildlife or a private conservation group. When asked about her favorite memory, she wrote:

I am floored by the amount of personal investment and interest faculty involved with CISAB had with my education/career plans. Dr. Troy Smith and Danielle Murray-Knowles were so supportive throughout the process. The diversity of taxa and geographic areas represented by the CISAB researchers is really inspiring. I've been extremely fortunate because I have been able to travel to Costa Rica for a Primate Behavioral Ecology Field School, and Tanzania for the IU Olduvai Gorge Field School. Both of these opportunities opened my eyes to the types of field research that exist-and both of those courses were transferable to the Animal Behavior degree.

**Congrats to all of our 2015 graduates!**



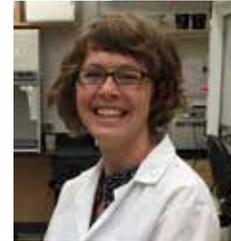
*Animal Behavior B.S. graduates 2015. (Standing (L-R): Alexandra Schimmel, Leah Widdicombe, Dylan Forrer, Kelsey Philippi, Jared Simoneaux; Kneeling: Prof. G. Troy Smith)*



# WELCOME NEW EMPLOYEES



**Chrisine Bergeon Burns:** CISAB is happy to welcome Christy as the new lab director! Christy, an IU graduate, comes to us from Louisiana State University, where she conducted her post-doctoral research. Christy earned a PhD in Ecology, Evolution and Behavior and an Area Certificate in Animal Behavior at IU, and taught one semester of BIOL-Z460, before pursuing post-doctoral research at Louisiana State University. There, she studied the physiological and ecological effects of the 2011 BP Deepwater Horizon oil spill on vertebrates residing in affected salt marshes along the Louisiana Gulf coast. Christy returned to IU to direct the lab at the beginning of February and has done an outstanding job of helping CISAB researchers employ endocrine and molecular techniques into their research.



**Frank "Buddy" Morris:** With an MFA from Indiana University in Photography/Digital Imaging, an MA in Photography from Ball State University, and extensive IT/website experience, we are excited to have Buddy join us as CISAB's new web developer and graphic designer.



**Charli Taylor:** We are excited to welcome back Charli Taylor as a part-time lab assistant. Charli will be assisting on a periodic basis with maintenance projects and general lab operations.



**Cara Wellman:** As a longtime CISAB member and professor in the Department of Psychological and Brain Sciences, Cara will take over as CISAB Director effective July 1. Cara has served on the CISAB steering committee since 2007 and served as interim CISAB Director when Troy Smith was on sabbatical in spring 2014. Cara was instrumental in the development of the neuroscience major and chaired the assessment plan development committee for the animal behavior major last year. Cara is thus well prepared to manage our new and growing undergraduate major in animal behavior. Cara is committed to CISAB's success in fostering collaboration across units on campus, and her appointment as CISAB director reiterates CISAB's commitment to its foundation as a bridge across departments.



## Congratulations Robert:

**Robert Conrick:** After 2 years as CISAB's web developer/graphic designer, Robert Conrick is leaving CISAB to attend graduate school. He will be attending the University of Washington in Seattle, where he will be working toward an MS and later a PhD in Atmospheric Science.



## Thank You Troy:

**Troy Smith:** After 4 years as the director of CISAB, Troy Smith is stepping down. Troy was an outstanding director! His patience, compassion, loyalty, dedication and support shown to students, staff, CISAB and the Program in Animal Behavior was greatly appreciated.





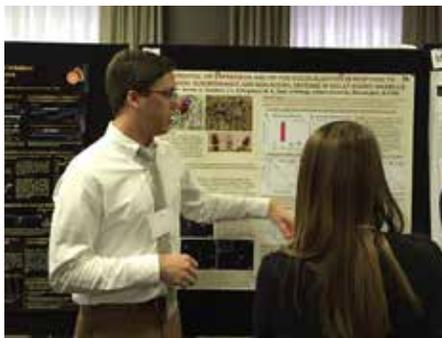
# 2015 ANIMAL BEHAVIOR CONFERENCE



CISAB hosted the 22nd Annual Animal Behavior Conference on March 26-28, 2015. The conference yet again broke attendance records, with nearly 300 registrants, 45% of whom were from out of state, and over 100 poster and oral presentations. 76 Undergraduate Students attended the conference as well. The conference opened at the Bloomington Convention Center on Thursday afternoon with a symposium organized by Ali Ossip-Klein, Jakki Petzold, and Sara Keesom and entitled "Every Signal Thing: Mechanisms and Evolution of Animal Communication." Attendees enjoyed 7 and 15 minute talks throughout the afternoon, as well as a 30 minute invited seminar by CISAB's own G. Troy Smith on social and hormonal modulation of sexually dimorphic electric communication in South American knifefishes. The symposium concluded with a keynote address by Jim Hare of the University of Manitoba: "With a Little Help from My Friends: Reliable Information in Ground Squirrel Alarm Calls."



The conference program continued at the Bloomington Convention Center on Friday, with more than 70% of the day's talks contributed by scientists visiting from universities other than IU. David Crews, who was this year's CISAB Exemplar co-Awardee with Jim Goodson, provided the conference's keynote seminar on hazards inherent in interdisciplinary behavioral research. Crews' talk inspired a lively discussion for the rest of the conference. Attendees reconvened Friday evening at the convention center for exciting exchange of ideas and tasty refreshments at a very well-attended evening session featuring 72 research posters.



The conference concluded on Saturday with the Jim Goodson Memorial Symposium: Investigating the Mechanisms of Social Behavior by Air, Land and Sea. This inspiring day-long event featured a truly outstanding lineup of renowned behavioral neuroendocrinologists representing some of Jim's closest mentors, colleagues and friends. The scientific program was on par with what you might hope to find at a national meeting, and the stories shared by those who knew Jim best were memorable and heartfelt. The event was moving and rewarding for participants and attendees alike. In keeping with tradition, Laura Hurley and Troy Smith hosted a closing reception at their home to celebrate the success of the weekend.

## Guest speakers for ABC 2015 included:

Elizabeth Adkins-Regan, Cornell University  
 Andrew Bass, Cornell University  
 Paul Forlano, Brooklyn College,  
 City University of New York  
 Hans Hoffman, University of Texas at Austin  
 David Kabelik, Rhodes College

Aubrey Kelly, Cornell University  
 Rosemary Knapp, University of Oklahoma  
 Alexander Ophir, Cornell University  
 Steven Phelps, University of Texas at Austin  
 Troy Smith, Indiana University  
 Richmond Thompson, Bowdoin College

**SAVE THE DATE! 2016 Animal Behavior Conference: March 31-April 2, 2016**



# CONGRATS TO THE ABC 2015 UNDERGRADUATE AWARDS



1st place – **Leslie Lundewall**, Department of Psychological and Brain Sciences, Indiana University  
EFFECT OF DOPAMINE D1 RECEPTOR BLOCKADE IN PREFRONTAL CORTEX ON STRESS-INDUCED  
MICROGLIA ACTIVATION

2nd place – **Willow Macy**, Department of Biology, Beloit College MATING REGIMES AND  
REPRODUCTIVE MORPHOLOGY OF MALES IN CALLOSOBRUCHUS MACULATUS

3rd place – **Conor Smith**, Department of Psychology, Northeastern Illinois University  
THE RELATIONSHIP OF ANXIETY AND DOPAMINE ON PROSOCIAL BEHAVIOR IN ZEBRAFISH



## CISAB AMBASSADORS IN THE STUDENT CONFERENCE EXCHANGE PROGRAM



16th Annual Student/Postdoc Symposium of the W. M. Keck Center for Behavioral Biology of North Carolina  
State University  
CISAB Ambassadors: **Delia Shelton** and **Rob Bowers**

Our trip to W.M. Keck Center for Behavioral Biology included a peek into the worlds of behavioral genetics and applied ecology interspersed with fine dining. The night before the symposium, our host Megan Serr and Caroline Lietsuch treated us to local cuisine; between bites of tasty dumplings, we became acquainted with each other's research interests. Lietsuch and Serr, IGERT fellows, are members of the Godwin lab where they study ways genetics can be used to control invasive rodents on oceanic islands. Delia Shelton discussed some of her recent work on how group composition can influence biobehavioral outcomes. She found that shoal composition influences exploratory behavior in zebrafish. The mixed shoals explored a novel stimulus more than pairs made entirely of sensory-impaired fish and control shoals. Robert Bowers shared his work examining casual reasoning in rats.

The 16th Annual Student/Postdoc Symposium had a record number of presentations and featured a nice series of talks, from dinosaurs to the modern-day world of fast food. A highlight of the morning session was a talk by Clint Pennick who explored the nutritional ecology of ants in New York City. He examined the feeding preferences of ants in traffic islands and parks, by presenting them with a spread that included fast foods and greener options such as grasshoppers. He found that the consumption of fast food cuisine changed across the city and among ant species. In the afternoon session, D. Magdalena Sorger presented work on trap-jaw ants. These little creatures have the fastest moving predatory appendages, which they can use to propel themselves through the forest of mountainous Borneo. She found colony level differences but, little evidence for population divergence along an elevational gradient.

We thank CISAB for letting us serve as ambassadors to Keck Center. The Keck Symposium was a warm environment for sharing our dissertation research with an impressively diverse scientific audience.

- Delia Shelton

The 16th annual symposium of the W.M. Keck Center for Behavioral Biology of North Carolina State University was held this February in Raleigh, North Carolina. It featured the presentation of 28 works spanning a wide range of methods, perspectives, ecologies, and species. Most contributions were brought by undergraduate, pre-doctoral and post-doctoral students of North Carolina State University, with two visitors from Indiana University. The represented work involved applied and basic science from many kinds of field and many kinds of laboratory. Workers using methods of a mixture of disciplines, including genetics, neuroscience, endocrinology, ecology, cladistics, and psychology shared insights about the behaviour of fish, insects, rodents, and dinosaurs. This year's Keck Symposium was their largest, reflecting the continued growth of the Keck Center in both scope and numbers.

-Rob Bowers

Annual Brains and Behavior Spring Retreat in Atlanta, Georgia  
CISAB Ambassadors: **Ali Ossip-Klein** and **Delawrence Sykes**

This year, I was honored to be selected to present at the Annual Brains and Behavior Spring Retreat in Atlanta, Georgia. We arrived in Atlanta on Thursday evening where we were warmly greeted by three Georgia State University students: Hillary, Emily, and John and were treated to a delicious dinner at a local Mexican restaurant. On Friday, we enjoyed breakfast at the conference and were welcomed to the program by Dr. Geert de Vries, the director of the Neuroscience Institute. We then received an update on the brains and behavior program from Dr. Mukesh Dhamala, and learned how this program spans three campuses across Atlanta (Georgia State University, Emory University, and Georgia Institute of Technology) and allows students to collaborate and take classes at these different universities. After an exciting talk on crayfish locomotor circuits by a Neuroscience graduate student, and an update from the Center for Advanced Brain Imaging, we were treated to a delicious catered lunch. Over lunch, I got the chance to meet with additional undergraduate, graduate, and postdoctoral students to discuss our research interests and the exchange program with CISAB. Following lunch, we were treated to four high quality talks by graduate students in biology, neuroscience, and chemistry. Particularly interesting was the talk on B virus infection in macaques, and methods for studying this highly contagious virus. The keynote speaker, Dr. Joe Tsien, gave an intriguing talk on brain computation and ways that his lab searches for universal wiring logic. The retreat closed with a poster session, where I had the opportunity to present some of my dissertation work to students, postdoctoral fellows, and faculty in the department. This networking was particularly beneficial for me, as I'm graduating this summer and searching for postdoc positions. Following the poster session, we enjoyed a graduate student party with delicious southern-style barbecue. This was an amazing opportunity to present and receive feedback on my research while networking for job opportunities, and I had a wonderful time during my visit in Atlanta!

-Ali Ossip-Klein

### **We heartily thank :**

The NCSU Keck Center  
and the  
GSU Center for  
Behavioral Neuroscience  
for sponsoring  
the following ABC '15  
guests:

Kate Coyle (NCSU)

Mehgan Rebuli (NCSU)

Zackary Johnson (GSU)

Eric Song (GSU)



# SUMMER 2015 REU PROGRAM

During Summer 2015, IU is once again hosting several bright undergraduates from around the country for its REU program. Students will be paired with faculty and graduate student mentors, and will enjoy an immersive summer of research and professional development activities. This year's selection process was particularly competitive, with 460 applicants competing for 10 positions.

Please welcome the newest cohort of CISAB REU Students:



Joshua Cain (Drake University)  
Mentor: Jon Crystal

Brianna Silver (Colorado College)  
Mentor: Troy Smith & Adam Smith

Xenia Davis (Delaware State University)  
Mentor: Jeff Alberts & Delia Shelton

Emily Virgin (Northern Illinois University)  
Mentor: Kim Rosvall & Mandy Izzo

Alejandra Enriquez (New Mexico State University)  
Mentor: Emilia Martins & Piyumika Suriyampola

Shakeera Walker (Montclair State University)  
Mentor: Cara Wellman & Kelly Moench

Katherin Morales (Emporia State University)  
Mentor: Cara Wellman & Rachel Skipper

Vanessa Wilson (Bennett College for Women)  
Mentor: Laura Hurley & Chris Peterson

Rebecca Sandlain (Illinois Institute of Technology)  
Mentor: Laura Hurley & Sarah Keesom



INTERESTED IN THE CISAB REU PROGRAM?

CHECK US OUT AT: <http://www.indiana.edu/~animal/reu/>



# 2015-2016 CISAB & CTRD AWARDS



## Congratulations to the CISAB Scholarship Recipients:

<i>Chris Petersen</i>	<i>Paul Meyer</i>
<i>Leah Wilson</i>	<i>Sam Slowinski</i>
<i>Mikus Abolins-Abols</i>	<i>Sarah Keesom</i>

## Congratulations to the CTRD Fellowship Recipients:

*Tierney Lorenz (postdoc)*  
*Adam Smith (postdoc)*  
*Caroline Deimel*  
*Amanda Gibson*

### William J. Rowland Mentoring Award:

The William J. Rowland Award recognizes graduate students who show strong dedication to mentoring undergraduates in research. **Sarah Keesom** received the 2015 Rowland Mentoring Award. Sarah has been an active and outstanding mentor to undergraduate researchers, including those in CISAB's REU program. She extends her mentoring in research methods to the classroom by developing and implementing exercises that progressively walk students in Animal Behavior through the steps in designing experiments.



Congratulations, *Sarah!*

### Hanna Kolodziejski Scholarship:



Hanna Kolodziejski was a talented young scientist, who was an exemplary member of CISAB and of the Evolution, Ecology, and Behavior graduate program. She was an outstanding and dedicated researcher, teacher and member of the community. The Hanna Kolodziejski scholarship recognizes graduate students, who like Hanna did, excel in research and teaching while making significant efforts in activism and community service. The recipients of the 2015 Kolodziejski scholarship are **Leah Wilson** and **Daniel Schwab**.



Leah's research in the Goodson/Kingsbury laboratory combines comparative functional neuroanatomy with well-designed behavioral experiments in wild songbirds to examine how seasonal changes in neuropeptide systems in the social brain network are linked to seasonal social behavior. She is also highly active in serving CISAB, IU, and the community, having served on the CISAB steering committee, the organizing committee for special symposia at the last two Animal Behavior Conferences, mentoring students in the REU program and Women in Science Program, and serving as the biology coordinator for a program that helps Bloomington students prepare for high school math and science courses.

Daniel has taken the model system in Armin Moczek's laboratory (evolution of novel traits in dung beetles) in a new direction by exploring how the gut microbiome of these beetles influences fitness. Daniel is also committed to teaching and mentoring. He has led efforts to work with K-12 educators to develop modules for their science curriculum, has led events both at schools and community science outreach events, and has mentored numerous students at Harmony School with science projects.

Congratulations to *Leah* and *Daniel!*

### **CISAB Exemplar Award:**



The CISAB Exemplar Award was established in 2002 to recognize the careers of scientists who set outstanding examples of integrating different perspectives in the study of Animal Behavior. **Jim Goodson** and **David Crews** were the co-recipients of the 2015 Exemplar Award. Jim's research in using comparative approaches to understand how neuropeptidergic systems in the social brain network regulate species-level variation in sociality was elegant and groundbreaking. He was a star in the field of behavioral neuroendocrinology, and his work combining an understanding of natural social behaviors of wild birds with a rigorous understanding of neuroanatomy and function are an outstanding model of the approaches embraced by CISAB.



It is apt that David Crews was nominated for the Exemplar Award by his co-awardee, Jim Goodson. Crews' work in disciplines ranging from psychobiology to evolutionary biology to neuroscience, endocrinology, and epigenetics has over 16,000 citations. Crews' work is diverse and much of it has elegantly elucidated the evolution, physiology, and molecular mechanisms that underlie the diversity of reproductive behaviors in animals.

We are proud to add Crews and Goodson to the distinguished list of outstanding CISAB Exemplars.

### **CISAB Travel Awards:**

***Tierney Lorenez,***

International Academy of Sex Research, June 25-29, in Dubrovnik Croatia.

***Piyumika Suriyampola,***

52nd Annual Conference of the Animal Behavior Society, June 10-14, 2015, University of Alaska, Anchorage, AK.

***Delia Shelton,***

34th bi-annual International Ethological Conference in Cairns, Australia on August 9th-14th, 2015.

***Chris Petersen,***

Society for Behavioral Neuroendocrinology (SBN), June 10-13, 2015, Pacific Grove, CA.

***Leah Wilson,***

Society for Behavioral Neuroendocrinology (SBN), June 10-13, 2015, Pacific Grove, CA.

***Alison Ossip-Klein,***

International Society for Behavioral Ecology, July 31st-August 6th 2014, New York City.

***Abigail Kimmitt,***

Evolution (sponsored by Society for the Study of Evolution (SSE), the Society of Systematic Biologists (SSB), and the American Society of Naturalists (ASN)), June 20-24, Raleigh, NC.

***Amrita Bhattacharya,***

International Workshop in Evolutionary Biology, June 14-21, 2014, Guarda, Switzerland.

***Caitlyn Finton,***

Animal Behavior Society Conference, August 9-14, Princeton University.

***Kristyn Sylvia,***

2015 Society for Integrative and Comparative Biology (SICB) Annual Meeting, January 3-7, West Palm Beach, Florida.

***Nicholas Zautra,***

Toward a Science of Consciousness Conference, April 22-27, 2014, University of Arizona in Tucson, AZ.

***Caroline Deimel,***

83rd Annual Meeting of the American Association of Physical Anthropologists (AAPA), April 9-12th 2014, Calgary, Canada.



# NEW FACULTY



We are happy to welcome the new CISAB faculty members:

**Sue Carter** (Department of Biology & The Kinsey Institute): CISAB is pleased to welcome Sue Carter to IU as the new Director of the Kinsey Institute. Sue joins IU from the University of North Carolina where she was a Professor of Psychiatry. She has served as the president of the International Behavioral Neuroscience Society and in 2009 she won the Wayner-NNOXe Pharmaceutical Award for Translational Research. Her research epitomizes the interdisciplinary approaches embraced by CISAB in comparatively studying the neuroendocrinology of social bonding, male and female parental behavior, the social control of stress reactivity, and the social control of reproduction.



**Justin Garcia** (Gender Studies): Justin Garcia is an Assistant Professor in the Department of Gender Studies and also has an appointment at the Kinsey Institute. Justin has been a member of CISAB since 2011, when he joined the CTRD training program as a post-doctoral researcher. He was appointed as an Assistant Professor in Gender Studies at IU in 2013. Justin's research focuses on the biology of sex and gender, and on social relationships and sexual behavior in humans.

**Kimberly Rosvall** (Department of Biology): Kim Rosvall joined CISAB in 2009 as a post-doctoral researcher in the CTRD training program. She continued as an Assistant Scientist in Biology 2012, and was appointed as an Assistant Professor in 2014. CISAB is pleased to welcome Kim as a faculty member of CISAB. Kim's research in songbirds ranges from field studies of the reproductive behavioral ecology to endocrine physiology to studies of how gene regulation is linked to differences between sexes and across individuals in ecologically-relevant behaviors.



**Robert Shumaker** (Indianapolis Zoo): Rob Shumaker is the Vice President of Conservation and Life Sciences at the Indianapolis Zoo. He is an expert in the use of tools by primates, and was instrumental in the design and development of the world-class Simon Skjodt International Orangutan Center at the Indy Zoo. Rob has studied the behavior of orangutans for over 20 years and is one of the leading experts in the fields of primate cognition.

**Chris Martin** (Indianapolis Zoo): We welcome Chris Martin as a new member of CISAB. His research uses innovative technologies (e.g. touch screens) to understand cognition in animals, particularly primates. Chris was a post-doctoral researcher at the Center for International Collaboration and Advanced Studies in Primatology at the Primate Research Institute in Kyoto, Japan, where he studied social cognition in chimpanzees. He is currently a post-doctoral researcher at the Indianapolis Zoo, where he is developing interactive tasks to study social cognition in orangutans.





# NEWS FROM THE CISAB LAB



The CISAB Lab is thriving at Jordan Hall 348, and Christy Bergeon Burns is thoroughly enjoying her new role as Lab Director. Exciting new projects are starting on a regular basis! Recent lab users have made use of the cryostat for brain micropunches, explored the data reduction functionality of the new plate reader software, and optimized qPCR set-up for 384-well plates with smaller reaction volumes and/or lower cDNA concentrations. Molecular and endocrine techniques make daily use of the recently renovated workspace and equipment. Three lab computers are now online and networked to a central lab printer, and a new -80 freezer is in place to accommodate the sample storage needs of CISAB lab users. The lab continues to operate as a recharge center, where users are charged at cost for supplies and reagents. Equipment maintenance and general lab upkeep are subsidized by CISAB. Details of the current fee structure can be found here: <http://www.indiana.edu/~animal/lab/fees.php>. In addition to supporting CISAB member research activities, the lab will continue to play an integral role in hosting training modules for CISAB-related coursework, such as A501 Techniques in Reproductive Diversity.



We welcome you to drop by or contact Christy ([cbergeon@indiana.edu](mailto:cbergeon@indiana.edu)) to discuss how the CISAB Lab may be able to help facilitate your research.



# REMEMBERING: *DR. JAMES GOODSON*



CISAB lost a great friend and colleague on August 14, 2014 when Professor Jim Goodson passed away after a hard-fought and brave battle with cancer. Jim was a valued member of CISAB and an important contributor to our behavioral mechanisms group at IU. We will remember him for his outgoing, funny personality and his unending commitment to research, teaching and mentorship. He will be greatly missed.

Jim's mentors at Cornell University wrote a wonderful tribute about him detailing his many contributions to the animal behavior field. The link to this memorial can be found here: [http://www.sbn.org/News/News/SBN-Says-Farewell-to-Dr-James-Goodson-\(1965-2014\).aspx](http://www.sbn.org/News/News/SBN-Says-Farewell-to-Dr-James-Goodson-(1965-2014).aspx)

Many of Jim's friends and colleagues gathered at this spring's Animal Behavior Conference to celebrate his life and career at a special symposium: Investigating the Mechanisms of Social Behavior by Air, Land and Sea. This gathering made it abundantly clear how many lives and careers Jim brightened.

We are honored to have Aubrey Kelly, Ph.D., a recent graduate of the Goodson-Kingsbury Lab, also share some of her thoughts on her mentor for CISAB members: *"I had the good fortune of working with Jim for about 9 years as an undergraduate and graduate student. He helped me become the scientist I aspired to be, and he will continue to serve as an inspiration for many. Jim was such a joy to work with and he had a strong daily presence in the lab. As a full professor, he managed to actively conduct experiments amidst writing grants, teaching classes, attending to administrative tasks, mentoring students, writing top tier journal articles, etc. Jim absolutely loved his birds, and because he was so passionate about understanding the brain and behavior, he couldn't resist staying out of the lab and working with the birds himself. His enthusiasm for science was infectious. On a daily basis, I could expect to write with Jim, discuss science together, watch him get excited over data or glowing neurons, talk about life goals and dreams, and watch humorous YouTube videos (he loved the one where "honey badger doesn't give a shit"). At least a few times a week, Jim would wander into the grad office asking if anyone wanted to go get lunch or an afternoon coffee with baked goods. He made graduate school an incredible and positive experience.*

*Jim had incredibly high standards – for himself, for his students, and for food and wine. The results of these high standards were a successful, highly respectable career and lots of lab lunches and happy hours. I published several strong papers because of Jim’s intense training...*

*...He could certainly be harsh, but his honesty and high expectations pushed me to thrive. Not only did I learn how to be a scientist from Jim, but he served as a role model as a mentor and every day I see his high standards in me as I now influence those around me in my new postdoctoral lab. Although Jim has passed away, he will continue to indirectly affect the lives of burgeoning young scientists... through me, through his previous mentees, and through his groundbreaking research and innovative ideas.*

*Jim was also an inspirational individual outside of academia. Amazingly, he managed to live a relatively balanced life while being a bit of a workaholic. He spent time with his beautiful family, frequently went birding, attended music shows (he happily went out of state several times to see The Allman Brothers and Ryan Adams), and traveled around the world. He encouraged his students to do the same when given the opportunity. He truly lived a large life. Jim was an impeccable scientist, a spectacular mentor, and most importantly an incredibly dear friend. He is sorely missed and will forever be in my heart."*



JIM GOODSON  
1965 - 2014

Call for Stories :  
Do you have news you want to share with the CISAB  
community?