



ANIMAL BEHAVIOR BULLETIN

FALL 2012

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Call for Stories

Do you have news you want to share with the CISAB community?

Contact us at cisab@indiana.edu!

SAVE THE DATES

November 2, 2012

Deadline for ABC '13 Satellite Symposium Proposals (see page 7)

November 7, 2012

ABC '13 Organizational Meeting

January 3-7, 2013

Society for Integrative and Comparative Biology (SICB) Conference

February 11, 2013

Deadline for Summer Research Experience for Undergraduates (REU) Applications

February 15, 2013

Deadline for CISAB and CTRD Graduate Fellowship Applications

March 28-30, 2013

20th Annual Animal Behavior Conference

WELCOME, NEW MEMBERS!

Mikus Abolins-Abols, Ketterson Lab
Stephanie Campos, Martins Lab
Amy Cash, Andrews Lab
Hidemi DeHays, Muehlenbein Lab
Caroline Deimel, Vitzthum Lab
Amanda Gibson, Lively Lab
Jesualdo Arturo Fuentes Gonzalez, Martins Lab
Jessica Hite, Hall Lab

Dr. Richard Janda, Linguistics
Francisco Magdaleno, West/King Lab
Dr. Verena Ohms, Suthers Lab
Cathleen Rodda, Alberts Lab
Eric Shattuck, Muehlenbein Lab
Evanna Singh, Vitzthum Lab
Samuel Slowinski, Ketterson Lab
Dr. Adam Smith, Hurley Lab
Alianne Steffenson, Vitzthum Lab

...AND STAFF!



Charlene "Charli" Taylor joins CISAB as our part-time lab assistant for the 2012-13 academic year. She recently graduated with

distinction from IU Bloomington with a double BA in Biology and Anthropology and a minor in Animal Behavior. Her background is primarily in animal care, where she has worked with both domestic animals and wildlife. She is highly involved with WildCare Inc., where she specializes in raptor rehabilitation and serves on the Board of Directors.



Tamara Marnell is our new web and graphic designer. She holds a BS in Biology, a minor in Chemistry, and a Master's of Library Science from

IUB. She has several years of experience in web development and is currently working towards a certificate in copyediting from UCSD.



DIRECTOR'S MESSAGE



Greetings to the CISAB community! I am delighted to begin serving as director at such an exciting time for animal behavior at IU. CISAB is thriving thanks to the continued hard work and interactivity of its members and to the expert leadership of Greg Demas. Greg is a dynamo whose tireless efforts and vision have left a lasting mark on CISAB. I am grateful to him for helping me learn the ropes of the CISAB directorship and for continuing to work on proposals to enhance undergraduate study in animal behavior at IU. I would also like to thank Maggie Quinchia, our former web and graphic designer, who has moved to Alabama. Maggie contributed to CISAB in many ways, and I am particularly thankful for the enormous amount of effort that she, Linda Summers, and Rose Stewart made last fall to prepare materials for CISAB's internal review.

Welcome to the two newest members of the CISAB staff (p. 1). Tamara Marnell is our new web designer, graphic designer, and office assistant at the CISAB house. Tamara has already done an outstanding job of reconstructing the underlying infrastructure of our website to make it easier to maintain, and she has begun to update the site. In the coming months, look for continued improvements to the website as we add new features and reorganize the site to make it easier to navigate. Charli Taylor is our new assistant in the CISAB core lab. Charli is an IU graduate and a CISAB lab alumna. Her experience with animals and in the lab will be a great asset to the CISAB community, particularly during the lab's transition to a newly renovated space. Charli will also coordinate CISAB lab's operations while Rose is on family leave.

This fall's College Themester is focused on "Good Behavior, Bad Behavior: Molecules to Morality," and CISAB and its members are participating actively in it with courses and events.

The Animal Behavior Film Festival (p. 5) is allowing students, staff and faculty at IU to enjoy five entertaining films related to animal behavior. The film festival includes the world premiere of *The Ordinary, Extraordinary Junco*, written produced and directed by IU's own Jonathan Atwell, Ellen Ketterson, and Steve Burns.

Thanks to Michael Muehlenbein and Kevin Hunt for organizing and teaching the fall graduate Animal Behavior seminar course (A501) on Primate Socioecology and Behavioral Evolution (p. 5). They have invited a stellar line up of world-renowned primatologists to speak in the series, and the course and seminar series have been a great contribution to the Themester.

In the spring semester, I will be teaching an A501 course on Neuroethology (p. 4). I will invite four prominent neuroethologists to give seminars on their research and to interact in small groups with our graduate and undergraduate students. The schedule of speakers will be available soon. A new course (ABEH A401) will also allow advanced undergraduates interested in animal behavior to participate. I will teach A401/A501 in conjunction with a new course in Biology (Z463/Z563 Comparative Neurobiology of Animal Behavior).

The annual spring CISAB conference is scheduled for March 28-30, 2013, in the IMU (p. 9). The event will include a talk by one of our own distinguished faculty members and poster presentations on Thursday; and student talks, posters, our invited keynote speaker (Frances Champagne, Columbia University), and an evening reception on Friday. As in the past, we would also like to hold a satellite symposium on the Saturday of the meeting. Please consider submitting a proposal for a satellite symposium or workshop (p. 7). *(continued on p. 3)*

Director's Message, continued

Good news for the users of the CISAB lab! The CISAB core laboratory will be moving to a newly renovated and larger space on the 3rd floor of Jordan Hall in the spring of 2013 (p. 6). The core laboratory serves the CISAB community by providing equipment and training in numerous techniques at minimal cost to users. The newly renovated space will allow us to house new equipment and offer support for additional techniques. Rose Stewart, Greg Demas (in his new role as Associate Chair for Research in Biology), and Virginia Vitzthum, who will share the CISAB lab space, have been invaluable in working with the architects to design the plans for the new lab. We are grateful to The College for funding the renovations. Rose, Charli, or I will send updates as the move approaches so that users may anticipate brief service disruptions that might occur during the move.

The NSF-funded REU Program in Animal Behavior is one of the longest running and most successful REU programs in the nation. Over 140 undergraduates from all over the nation have gained experience as CISAB REU interns since the program was started in 1991. Many thanks to the faculty members and graduate students who served as mentors to this summer's interns and to Linda Summers and Nikki Rendon who served as logistical mentors to the interns and kept the program running. The success of the REU program owes much to Emilia Martins, whose leadership of the REU program and of other programs that enhance undergraduate research has been an enormous asset to CISAB, IU, and the larger community in animal behavior. This fall, Emilia turned the directorship of the REU program over to Laura Hurley, who I am confident will maintain its vibrancy.

One of my goals for CISAB is to continue its support of undergraduate research and education in Animal Behavior. CISAB is supporting the outreach efforts of IU's successful undergraduate Neuroscience Club (p. 4). CISAB soon will organize an undergraduate research opportunities event that will make it easier for undergraduates to find research experiences in CISAB-affiliated labs. Stay tuned for the details. We will also continue to promote the CISAB internship program to provide opportunities for undergraduates to gain hands-on experience at local and regional organizations that work with animals.

CISAB will continue to support the research of graduate students through scholarships, merit awards, and travel awards. As in the past, applications for CISAB scholarships and CTRD fellowships will be due on February 15. See the CISAB website closer to the deadline for application instructions and materials. CISAB travel awards provide financial support for students to present their research at national or international conferences. The format for applying for travel awards has changed somewhat, so be sure to check the website for details. Finally, I encourage all of you to submit nominations for the Bill Rowland Mentoring Award and the Hanna Kolodziejewski Award, which will be given at the spring conference. The Rowland Award recognizes CISAB graduate students for outstanding mentorship of undergraduate researchers. The Hanna Award recognizes graduate students who show not only excellence in research, but commitments to community service and undergraduate teaching and mentoring.

I wish all of you a happy and productive fall semester and I look forward to seeing you at the spring conference.

-G. Troy Smith

UNDERGRADUATE SPOTLIGHT

Spring 2013 A401/A501: Neuroethology

Save room in your course schedule for this exciting speaker series! Dr. G. Troy Smith will host this one-credit seminar on the topic of neuroethology, which examines the role of the nervous system in the natural behavior of animals. Concurrent enrollment in BIO Z463/Z563 is highly encouraged.

Coming Soon: Undergraduate Research Night

CISAB is planning a one-night event for students and researchers to meet and explore opportunities for undergraduate research in biology, psychology, and related disciplines at IUB. Keep an eye on your inbox for an announcement of the date and participants!

Attention, Undergrads!

Do you have an interesting internship experience or senior project you'd like to share? Want to see your club featured in the next Undergraduate Spotlight?

Send us your news at cisab@indiana.edu!

IU NEUROSCIENCE CLUB

In only its second year of existence, the IU Neuroscience Club is already making great strides to foster neuroscience research and outreach activities across campus and in our community. Under the leadership of president Ben Rush and faculty advisors Joseph Farley (Psychological and Brain Sciences) and Jim Goodson (Biology), the group has grown to approximately 60 members. Membership is open to all majors and individuals. The club meets bimonthly to host guest speakers and presentations by undergraduate members. They also hold laboratory sessions where members get a chance to meet and conduct neuroscience-related experiments. Initial funding for the IU Neuroscience Club was provided by a Metz grant from the IU Student Association, and they are working now to develop a fundraising strategy that will help support their future endeavors.

Recently, CISAB provided funding to help the IU Neuroscience Club purchase six SpikerBox kits and accessories. The SpikerBox is a portable electrophysiology unit that allows researchers to stimulate, record and view action potentials in small insect parts, such as a cockroach leg. These SpikerBoxes will be used by the Club for outreach purposes with organizations such as the Boys and Girls Club and Girls, Inc., providing a great way to get children excited about neuroscience and engaged in the scientific method. The SpikerBoxes will also be available for loan by IU researchers, and plans are underway to incorporate them into introductory biology and neuroscience courses. Stay tuned for updates about the SpikerBoxes in future issues!



WELCOME, NEW UNDERGRADUATES!

Katherine Abderholden
Andrew Anderson
Rebecca Bedwell
William Bobe
Brandon Buckley
David Chervony
Casey Flynn
Bryce Gorsuch
Benjamin Hart

Samantha Herbert
Sarah Huguenard
Devin Jacobs
Lauren Kappel
Samantha Lasko
Abby McClain
Lee Mejean
Hannah Milano
Richard Noel

Emily Richart
Laura Ruchti
Matthew Smith
Abigail Snedeker
Cassandra Steinberg
Andreina Sweitzer
Joe Welklin
Chelsea Winfrey

FALL 2012 THEMESTER

PRIMATE BEHAVIOR SPEAKER SERIES



Brian Hare (Duke University)
September 25, 6-7:00PM, Neal-Marshall BCC
 "How Does a More Cooperative Ape Evolve?"



Joan Silk (Arizona State University)
November 15, 5:30-6:30PM, Whittenberger Auditorium
 "What Are Friends For? The Adaptive Value of Social Bonds"



David Watts (Yale University)
October 2, 6-7:00PM, Neal-Marshall BCC
 "Hunting Territoriality and Violence in Wild Chimpanzees"



Karen Strier (University of Wisconsin)
November 28, 5:30-6:30PM, Jordan Hall 124
 "Behavior, Demography, and the Adaptive Potential of a Critically Endangered Primate"



Michael Huffman (Kyoto University)
October 16, 6-7:00PM, Neal-Marshall BCC
 "The Evolution of Medicinal Plant Use in African Great Apes and Traditional Human Societies"



Robert Shumaker (Indianapolis Zoo)
December 5, 5:30-6:30PM, Jordan Hall 124
 "Are Chimpanzees the Most Proficient Animal Tool Users?"



Charles Nunn (Harvard University)
October 25, 6-7:00PM, Neal-Marshall BCC
 "Sex, Germs and Worms: Infectious Disease in Primate Societies"



ANIMAL BEHAVIOR FILM SERIES



Grizzly Man (2005)
September 14, 6:30PM
 IU Cinema



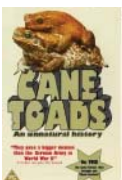
Project Nim (2011)
October 22, 7:00PM
 IU Cinema



Ordinary Extraordinary Junco (2012)
December 11, 6:30PM
 IU Cinema



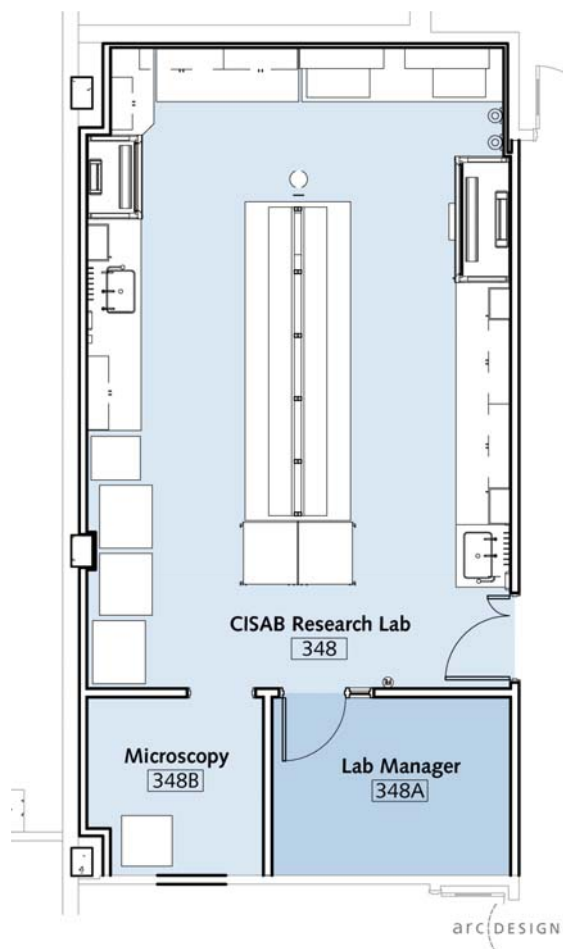
The Cove (2009)
October 3, 7:00PM
 Woodburn Hall 101



Cane Toads: An Unnatural History (1988)
December 4, 7:00PM
 Fine Arts 102



CISAB LAB UPDATE



Exciting changes are coming to the CISAB Lab! Recently, we received word that the College of Arts of Sciences will be providing funding to move the CISAB Lab to a newly renovated space on the third floor of Jordan Hall that will be shared with CISAB member Virginia Vitzthum. This news could not have come at a better time, as our user base continues to grow each year and we are rapidly outgrowing our current location.

CISAB Director Troy Smith and Lab Manager Rose Stewart have been directly involved in all aspects of the architectural plans for this new space, which will include a large central laboratory, microscopy room, and lab manager's office. The plans will allow for increased countertop space to house equipment, two state-of-the-art chemical safety hoods and a central bench capable of seating 10-12 individuals. Construction is scheduled to begin in early 2013 with an estimated completion date in late spring or early summer. During the transition to the new space, there will be times when certain equipment items will not be available; we will be sure to keep everyone informed of these expected outages well in advance. Please stay tuned for more updates in future issues.

The Lab also recently welcomed a new part-time lab assistant, Charli Taylor (see page 1 for her bio). Please stop by Jordan Hall 136 when you have a chance to introduce yourself. Charli's primary duties will be to provide general lab support, to assist with research projects, and to help prepare for the 2013 move. She will also be on hand to assist CISAB members while lab director Rose Stewart is on family leave from December 2012 to April 2013.

Finally, if you are planning any research projects in the CISAB Lab during the next several months that will require assistance or technical support, please contact Rose Stewart (stewarra@indiana.edu) as soon as possible. We would like to plan ahead so you are fully supported during Rose's absence. Thank you!



-Rose Stewart



AWARDS AND RECOGNITIONS



FACULTY

The Indiana University Office of Women's Affairs presented **Dr. Ellen Ketterson** with the Distinguished Scholar Award in May.

Dr. Kimberly Rosvall and **Dr. Ellen Ketterson** of Biology with **Dr. Haixu Tang** of Informatics have been awarded a two-year exploratory grant from the National Institutes of Health to study how social challenges prime the brain and body for social instability.

Dr. Curt Lively, a 2011 IUB Distinguished Professor, will serve as the Vice President Elect of the American Society of Naturalists for 2012-13.

Last winter, **Dr. Roderick A. Suthers** received the distinction of Fellow from the AAAS for his contributions to the understanding of the fundamental mechanisms underlying sound production in birds.



STUDENTS

The 2012 Rowland Mentoring Award went to **Brandon Hill** and **Dustin Reichard** for their outstanding mentoring of undergraduates.

Harald Parzar received this year's Hanna Kolodziejski Award for his dedication to research and teaching.

Mollie Farrell, Lauren Rudolph, and Leah Wilson have been named our 2012 Graduate Scholars. **Amanda Gibson, Aubrey Kelly, Mark Peterson, and Melissa Toups** were selected as 2012-13 CTRD Trainees.

Daniel Schwab and **Oliver Beckers** of the Moczek Lab have received NIH fellowships.

Two students from the Wellman Lab placed in the Undergraduate Poster Awards for their submissions to the 19th Annual Animal Behavior Conference. **Michael Tu** took second for his poster on "The Effects on Activity in the Medial Prefrontal Cortex During Discriminative Fear Conditioning." **Grant Lin** placed third for his poster, "Dopamine D1 Receptor Blockade in Rat Medial Prefrontal Cortex Prevents Dendritic Atrophy During Stress."

CALL FOR SATELLITE SYMPOSIUM PROPOSALS

Plans are underway for the 20th Annual Animal Behavior Conference! This year, there will be a satellite symposium on **Saturday, March 30** with an additional seminar, workshop, or discussion on a focused topic in animal behavior.

If you have an idea for a topic and would be willing to organize

the symposium, please send a brief proposal to Troy Smith that includes:

- (1) the topic and a description of the satellite symposium
- (2) a list of people willing to help organize it
- (3) possible participants (e.g. locals, people who will likely attend the main conference, invited outside speakers, etc.)

CISAB will provide logistical support and a small budget to pay for refreshments and to help defray the costs of bringing in an outside speaker.

Proposals are due **November 2**. Please contact Troy Smith (getsmit@indiana.edu) for further information.

 REU 2012 



Bernadetta Bernatowicz (University of Scranton)

Dr. Troy Smith

“Expression of Arginine Vasotocin in Brain Regions that Influence Sexually Dimorphic Electrocommunication in *Apterionotus leptorhynchus*”

Candace L. Cooper (Claflin University)

Elizabeth D. Carlton and Dr. Gregory Demas

“Energetic trade-offs between the reproductive and immune systems in female Siberian Hamsters (*Phodopus sungorus*)”

Brandon Duncan (Point Loma Nazarene University)

Dr. Kimberly Rosvall

“Why Do Some Animals Produce More Testosterone Than Others?”

Maciej Gonek (University of North Carolina—Chapel Hill)

Dr. Mackie and Dr. D.J. Morgan

“Analysis of Morphine Reward and Dependence in Desensitization-Resistant Cannabinoid 1 Receptor (CB₁) Mutant Mice”

Jasmine M. Molin (Spelman College)

Dr. Farrah Bashey-Visser

“Within-Host Competition between Two Sympatric Insect-Parasitic Nematode Species”

Marco Navarro (Saint Louis University)

Dr. Adam Smith and Dr. Laura Hurley

“Acoustic Trauma and Serotonergic Plasticity: Dealing with Damage in a Noisy World”

Shannon Perry (Wesley College)

Jessica Hanson, Sarah Keesom, and Dr. Laura Hurley

“The Effects of Sexual Experience on Male Mouse Ultrasonic Vocalizations”

Brittany C. Price (North Carolina State University)

Delia S. Shelton and Dr. Emilia P. Martins

“Larger Shoals Disrupt Rheotaxis Performance in Zebrafish (*Danio rerio*)”

Regina Ringer (Tuskegee University)

Leah Wilson and Dr. James Goodson

“Vasoactive Intestinal Polypeptide and Seasonal Flocking and Aggression in Four Emberizid Sparrows”

Isabel Rojas-Ferrer (University of Puerto Rico—Mayaguez)

Delawrence J. Sykes, Kuwade Huey-Robinson, and Dr. Emilia P. Martins

“Habitat Heterogeneity Influences Social Interactions in Zebrafish (*Danio rerio*)”



Center for the Integrative Study of Animal Behavior

Indiana University
402 N Park Ave
Bloomington, IN 47405
812-855-9663
cisab@indiana.edu

Save the date:

March 28 - 30, 2013

**20th ANIMAL
BEHAVIOR
CONFERENCE**

Keynote Speaker: Frances A Champagne

Indiana University - Bloomington

