



# Animal Behavior Bulletin

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## NEWS STORIES IDEAS

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855-9663

## CISAB Welcomes New REU Students

### Gilda Bobele

Georgetown University  
Mentor: H. Bradshaw

### Dominique Chandler

Norfolk State University  
Mentors: G. Demas and E. Chester

### Ken Formby

University of Wisconsin-Whitewater  
Mentors: T. Smith & W. Ho

### Lorna Moreno

University of Puerto Rico-Rio Piedras  
Mentors: E. Martins & S. Nava

### Jessica Rack

Slippery Rock University  
Mentors: T. Smith & W. Ho

### Katie Reimink

Kalamazoo College  
Mentor: W. Timberlake

### Sophia Roberts

Oberlin College  
Mentor: J. Alberts

### Heather Vega

Lamar University  
Mentors: M. West & J. Miller

### Cassandra Waldman

Baylor University  
Mentors: E. Martins & A. Bhat

### Kelly Zalocusky

Hendrix College  
Mentor: J. Goodson



The 2008 REU class will begin their summer research on May 27th.

## Allen Receives Mentoring Award

**Colin Allen**, Department of History and Philosophy of Science, was selected as the winner of the 2008 Faculty Mentor Award by the IU Graduate and Professional Student Organization. This award was established to recognize and generate apprecia-

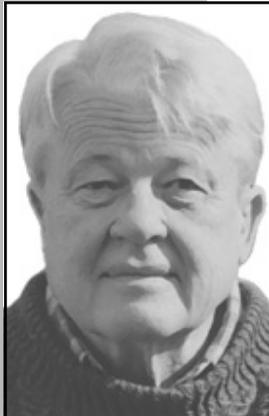
tion for faculty members who are outstanding mentors to graduate and professional students.

Allen was selected for the award based on his record of guiding and assisting students in refining strong research and teaching skills

while remaining respectful of the student's own ideas, interests and goals.



# Val Nolan Remembered



*“Sometimes a  
concept is baffling,  
not because it is  
profound, but  
because it is wrong”  
Edward O. Wilson*

CISAB is sad to announce the passing of Professor Emeritus Val Nolan, Department of Biology and one of CISAB’s founding members.

Val was a most remarkable man who lived a long and full life. He served his country during World War II in the Secret Service and the U.S. Navy. He then earned a law degree from IU and joined the IU law faculty in 1949. A distinguished lawyer and dedicated servant to the Law School and Indiana University, he served as Acting Dean of the Law School in 1976 and again in 1980.



At the same time, Val privately pursued his lifelong interest in ornithology, publishing a steady stream of scientific papers on birds during the 50's and 60's. This finally led, in 1968, to his tenured joint appointment in the Law School and the Department of Biology.

Although Val retired from teaching in 1985, he maintained an active scientific research program to

the present, in full collaboration with his wife, Distinguished Professor of Biology Ellen Ketterson, and their large and very active research group.

Val won many awards and honors during his two long and distinguished academic careers. Perhaps most notable and special in significance are two honors separated in time by 50 years. In 1957-1958, Val was honored with a prestigious Guggenheim Fellowship to allow him to pursue two projects, one legal and one biological. And in 1998, Val and Ellen shared the Margaret Nice Award, the premiere award bestowed by the Wilson Ornithological Society, in honor of their shared lifetime of magnificent contributions to the field of ornithology.

Val Nolan will long be remembered by this department for his wonderful science and his warm humanity.



Photo courtesy IU Law School

# 15th Annual Animal Behavior Conference

CISAB's 15th Annual Animal Behavior Conference was held in the Indiana Memorial Union Solarium April 24, 2008. This year we drew a record crowd and became an international conference with one attendee from The National University of Mexico. Along with our regular exchange students from the Keck Center at North Carolina State and Georgia State University, we welcomed researchers from the University of Louisville, Emory University, University of Illinois, University of California-Berkeley, University of Kentucky, University of Virginia, and The Ohio State University.



Twenty talks and 29 posters covered a range of topics including genetics, endocrinology, neurobiology, sexuality, philosophy and behavioral plasticity. Indiana University departments represented at the conference included the departments of Anthropology, Biology, Chemistry, Psychological and Brain Sciences, Philosophy, History and Philosophy of Science, Program in Neuroscience, and Cognitive Science Program. For a copy of the program and abstracts see the CISAB web page at <http://www.indiana.edu/~animal>

This year, CISAB encouraged undergraduates to participate in the conference. Seven students presented their research as posters. The top three

student posters were given monetary and gift awards.

The Exemplar Award was presented to Meredith J. West and William J. Rowland Award to Antino Allen. See articles on the following pages.

This year's plenary speaker was Irving Zucker from the University of California-Berkeley. Dr. Zucker has spent over three decades working on activity cycles of cotton rats, Syrian hamsters and golden-mantled ground squirrels. He has also researched reproduction in white-footed mice; fat, gonadotropin and hibernation cycles in ground squirrels; food intake in hamsters; partner preferences in meadow voles; and pineal physiology in Turkish hamsters.

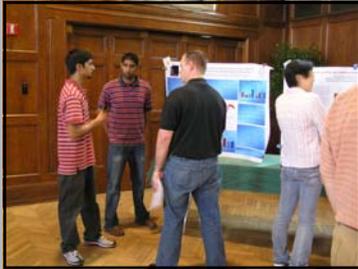
Dr. Zucker discussed not only his research findings over the past 30 years, he also addressed some of the problems with behavioral research. He argued that concentrating all of our research on a few preferred species limits the data we gather. We may be making assumptions that do not apply to all organisms across the board. He also discussed the disadvantages and limitations of neglecting females in physiological research on mammals. He concluded that there were enormous opportunities for those who want to depart from studying the old species even if that means not finding a broad audience or finding it more difficult to get funding.



## William J Rowland Award



Every year CISAB recognizes an IU graduate student whose mentoring of undergraduates reflects the example set by CISAB founding member, William J. Rowland. Bill was director of the REU program and helped unite faculty researchers with undergraduates as well as mentor 14 of his own REU students.



**Captain Antino Allen** was the recipient of this year's award. Antino is a graduate student in Troy Smith's lab where his research has focused on the mechanisms of spinal cord regeneration in weekly electric fish model. Antino's mentoring is notable for its diversity. He served as undergraduate mentor for the Faculty and Staff for Student Excellence program, which provides incoming freshman with support and guidance. He was Head Academic Councilor and then Program Director of the James P. Holland Summer Research Program at IU, which brings high school students who are under-represented minorities to spend two weeks at IU working in a lab. He has also served as an undergraduate research mentor for our CISAB REU program.

### A Special Thank You

to the Student Conference Committee

*"A bird does not  
sing because it has  
an answer. It sings  
because it has a  
song"*  
Chinese Proverb

Karen Acree  
Alex Bohorquez  
Bob Bowers  
Kristal Cain  
Emily Chester  
Idelle Cooper  
Jenelle Dorer  
Andrea Gillman  
Tim Greives  
Ian Hall  
Margaret Hirschauer

Winnie Ho  
Sayuri Kojima  
Katy Lenz  
Ben Miller  
Jennifer Miller  
Saul Nava  
Dawn O'Neal  
Carolina Penalva-Arana  
Mayte Ruiz  
Melissa Scotti  
Aaron Wilber



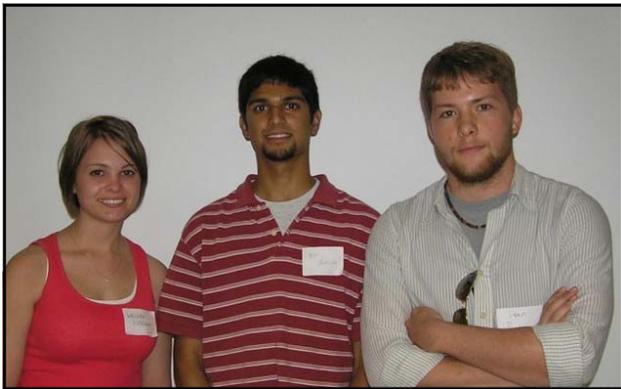
**Kristal Cain** was recently awarded a National Science Foundation Fellowship. This award will support her research for the next three years. Kristal is a member of the Ketterson Lab in the Department of Biology. She is studying the long-term effects that hormones have on behavior, morphology and physiology during development. She is specifically looking at the effects of Gonadotropin Releasing Hormone on the development of digit length ratios in a free-living songbird species, the dark-eyed Junco.

## Exemplar Award

This year's Exemplar Award, for a scientist with an outstanding career exemplifying the integration of different perspectives of animal behavior, was awarded to **Professor Meredith West**, Indiana University Department of Psychological and Brain Sciences.

At West's Animal Behavior Farm, she investigates the development of avian vocal communication and social competence. She has used a variety of methods to examine social experience, ranging from work with birds, mainly starlings and brown-headed cowbirds, who live and interact with humans in their homes to studying large aviaries of birds. She has studied how social affiliations among younger and older generations of birds leads to social and evolutionary change. She has also studied social communication in human infants.

West has published over thirty papers just since 2000, and has received numerous awards and recognitions including, IU Distinguished Faculty Research Lecturer, Chancellor's Professor, and Tracy M. Sonneborn Award. She was past editor of *Animal Behaviour* and the *Journal of Comparative Psychology* and was a founding member of the Center for the Integrative Study of Animal Behavior.



Lauren Walker, Rishi Ardeshta, Dean Bowker



Meredith West  
Photo Courtesy IU

## Undergraduate Poster Award

Winners of this years Undergraduate Poster Award are:

First Place:

**Lauren Walker**

Dept. of Psychological and Brain Sciences  
George Rebec's Lab

"Dysfunctional corticostriatal communication in R6/2 mouse model of Huntington's disease."

Second Place:

**Rishi Ardeshta**

Dept. of Psychological and Brain Sciences  
George Rebec's Lab

"Ceftriaxone effects on neuronal firing in striatum of mice transgenic for Huntington's disease."

Third Place:

**Dean Bowker**

Dept. of Psychological and Brain Sciences  
George Rebec's Lab

"Neuronal processing in the basolateral amygdale during cocaine self-administration and cue-induced reinstatement."

## CISAB and CTRD Awards

CISAB congratulates this years CISAB Scholars and CTRD Trainees:

### **CISAB Scholars:**

Emily Chester, Biology

Winnie Ho, Biology

Kathryn Lenz, Psychological and Brain Sciences

Jennifer Miller, Psychological and Brain Sciences

Mayte Ruiz, Biology

Aaron Wilber: Psychological and Brain Sciences

### **CTRD Trainees:**

Jonathan Atwell

Yaniv Brandvain

Timothy Greives

Dawn O'Neal

*"If we use  
excessively  
elaborate  
apparatus to  
examine simple  
natural  
phenomena,  
nature herself may  
escape us"*  
Karl von Frisch



Jenelle in the lab.

**Jenelle Donor** was a recent recipient of the Pari Prerana Award, a new award set up by an anonymous donor through the Graduate & Professional Student organization to honor a graduate student with a severe disability or chronic illness who excels academically.

Jenelle is currently a dual major Ph.D. in Neuroscience and Psychology in Rebec's Lab. Her decision to study Neuroscience stems from personal experience with severe generalized dystonia which causes muscle spasms throughout her body. She also has severe gastroparesis (stomach paralysis) and is dependent on intravenous nutrition. Jenelle was diagnosed with generalized dystonia in 1996 about a year after a bout of food poisoning and acute reactions to medications. Despite a year of rehabilitation and having to drop out of school she re-enrolled and finished a B.S. in Animal Science in 1999 and an M.S. in Kinesiology in 2003 both at the University of Illinois. This led to an interest in movement disorders and how dystonia and similar diseases affect the brain and can be successfully treated.

Her background in Animal Science provided a bridge to her present study of neurodegenerative disease, behavior and motor control. Jenelle's research focuses on evaluation of the neurophysiology and neurochemistry of the basal ganglia and related structures. These areas of the brain are involved in movement and also play a role in motivation, emotion and cognition. Her dissertation focuses on evaluating the role of 17- $\beta$ -estradiol (estrogen) as a neuroprotective therapy to delay the onset and progression of Huntington's disease in mouse models of the disease and is funded by a National Research Service Award through the National Institute of Neurological Disorders and Stroke.

**Professor Robert de Ruyter van Steveninck** has been named Associate Dean for Research in the Physics Department. Professor de Ruyter received his PhD in Experimental Physics from the University of Groningen, The Netherlands. After a post-doc at Cambridge and work in audiology at the ENT Clinic of University Hospital, Groningen, he worked at the NEC Research Institute in Princeton, NJ. He joined IU in 2003 as a Linda and Jack Gill Professor of Physics.

De Ruyter's research centers on sensory signal processing in the blow-fly brain by using electrophysiological techniques and concentrating on the motion detection in the visual system. He is attempting to develop a quantitative understanding of neural coding and computation and the reliability of neural signals. He is currently focusing on principles of optimization and neural computation, especially in the context of natural sensory signals.



De Ruyter's publications include papers on a variety of neural coding and neural computation topics, including a monograph on neural information processing. He is a fellow of the American Physical Society and a member of the advisory Board for the Linda and Jack Gill Center at Indiana University.

See AB Bulletin, Fall 2006 for article on de Ruyter's research.

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**Professor Michael Wade** of the Department of Biology was recently honored by the National Science Foundation with an OPUS (Opportunities for Promoting Understanding through Synthesis) Award. This award will provide him support to complete a book on a compilation of his research which includes more than 130 research papers and a groundbreaking 1984 theoretical paper on measuring natural and sexual selection.



With an undergraduate double major in mathematics and biology from Boston College and a doctoral degree in the Department of Theoretical Biology from the University of Chicago, Wade was an ideal candidate to make major advances in the field of mating-system evolution. He not only had the mathematical talent, he had the empirical savvy to conduct unique experiments in sexual selection.

Along with his original research, Wade is known for his vital role in developing the Chicago School Theory of Evolutionary Genetics. He has made major advances in the field of mating-system evolution and addressed such topics as the role of polygyny vs. monogamy on the differences between the sexes. His research has been funded with numerous grants from the National Science Foundation, the National Institutes of Health, and the Howard Hughes Medical Institute. He has received awards for teaching excellence and is the director of the Evolution, Ecology and Behavior Program.

**Center for the Integrative  
Study of Animal Behavior**

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## National Meetings

**Genetics & Genomics of  
Behavior**

North Carolina State, June 4-7

**Consciousness, Agency and the  
Will**

University of Edinburgh, June 28-29

**Society of Behavioral  
Neuroendocrinology**

Groningen, Netherlands, July 9-12

**2008 North American Comput-  
ing & Philosophy Conference**

Indiana University, July 12-12

**CogSci 2008**

Washington, DC, July 23-26

**International Primatological  
Society Congress**

Edinburgh, Scotland, August 3-8

**International Society for Behav-  
ioral Ecology Conference**

Ithaca, NY, August 9-14

**Animal Behavior Society**

Snowbird, UT, Aug 16-20

**10th International Conference  
on Cognitive Neuroscience**

Bodrum, Turkey, September 1-5

**Midwest Primate Interest Group**

University of Notre Dame,  
Sept 19-20

