

Teaching ExperienceCourses

Eastern Kentucky University
Fall 2006-present

Undergraduate/introductory

Introduction to Biology Laboratory
Introduction to Biology
Human Physiology

Upper level undergraduate/graduate

Hormones and Behavior
Current Topics in Ecology and Evolution
(students critically evaluate current
research literature)

Teaching Assistant Courses

Lehigh University
1998-2000; 2002-2003

Introductory to Cell and Molecular Biology Laboratory
Designed and Taught Histology Laboratory

Additional Teaching Lectures

Lehigh University

Behavioral Ecology – Mate Choice Theory

Behavioral Endocrinology – Hormones and Parental
Behavior

Histology – Adrenal Gland; Hearing, Touch, and Taste
Senses

Pigeon Key Foundation

Coral Reef Fish – Damselfish Reproductive Behavior

Teaching Awards

2006 - Distinguished Educational Leader Award: Exceptional Classroom Performance
presented by Student Government Association of Eastern Kentucky University
- one of four awards presented among all university professors

Grants and Research Awards

NIH's Institutional development Network of Biomedical Research Excellence (INBRE). Eastern Kentucky U.
2008
Title: Neuropeptide Modulation of Biparental Care in a Monogamous Fish
Award: \$174,116

Graduate Education and Research Scholarship Eastern Kentucky U.
Award: teaching release time in 2008 to prepare a manuscript 2007
(Declined for NIH INBRE award)

Junior Faculty Summer Research Award Eastern Kentucky U.
Title: Neuropeptide modulation of parental behavior 2006

Invited Addresses

Fall 2007, University of Kentucky

Department of Biology

“Ecological and Neuroendocrinological Determinants of Reproductive Behavior in Fishes.”

Fall 2006, Eastern Kentucky University

Department of Biological Sciences

“Exploring the mechanisms of monogamy and aggression in a biparental fish.”

Spring 2006, McMaster University

Department of Psychology, Neuroscience and Behavior

“When Tempers Flare: Field studies on the neuropeptide modulation of social dynamics in a territorial damselfish.”

Spring 2006, Eastern Kentucky University

Department of Biological Sciences Seminar Series

“From Behavioral Ecology to Physiology: An integrative approach to the evolution of aggression and social dynamics.”

Spring 2006 Hawaii Institute of Marine Biology, University of Hawaii

“From Behavioral Ecology to Physiology: An integrative approach to the evolution of aggression and social dynamics.”

Spring 2006 Long Island University, C.W. Post Campus

Biology Department Seminar Series

“New insights into the modulation of behavior: Field studies in a territorial tropical damselfish.”

Spring 2006 Cornell University

Department of Animal Science, Reproduction and Endocrinology Seminar Series

“New insights into the neuropeptide modulation of aggressive behavior: Field studies in a territorial tropical damselfish.”

Spring 2003 Cornell University

Department of Neurobiology and Behavior Seminar Series

“Mate searching and the influence of competition in a monogamous biparental fish, the convict cichlid, *Archocentrus nigrofasciatus*”

Leadership roles

2005 - Organized Neuroethology Journal Club for the Department of Neurobiology and Behavior at Cornell University

2005 - Organized weekly research meetings for Dr. Andrew Bass and our lab group

Undergraduates trained

2004 – 2006; Cornell University, Christina DuRoos.

Project “AVT’s influence on single male aggression in the convict cichlid.”

2006 – present; Eastern Kentucky University, Nirmalee Ratnamalala, McNair Scholar and Honors student.

Project “AVT’s influence on male parental aggression in the convict cichlid.”

Honors Thesis committees

2006, Cornell University, Ryan Wong

Graduate Students Trained

2006 – present; Bethany Westrick

Graduate Student Committees served on

2006 – present:

Christine Lattin

Patrick Ian Horn

Kimberly Little

Bethany Westrick

Chad Soard

Patrick Lee Droppelman

Patrick Gastrin

Jeffery Jackson

Jason Courter

Presentations at National Meetings

Talks:

Santangelo, N & A.H. Bass. 2006. New insights into neuropeptide modulation of aggression: Field studies in a territorial tropical damselfish. Kentucky Academy of Sciences.

Santangelo, N. & M. Itzkowitz. 2002. Courtship Differences Among Rejected and Selected Convict Cichlid Males. The Animal Behavior Society.

Santangelo, N. & M. Itzkowitz. 2001. How Does Mate Variation Influence Mate Searching in Female Convict Cichlid Fish? The Animal Behavior Society.

Santangelo, N. & M. Itzkowitz. 2000. Mechanisms Behind Mate Choice of Male Convict Cichlids. The Animal Behavior Society.

Santangelo, N. & M. Itzkowitz. 1999. The Male Beaugregory's Decision to Court or Defend. The Animal Behaviour Society.

Santangelo, N. & M. Itzkowitz. 1999. Mechanisms Behind Mate Choice of Female Convict Cichlids. The Animal Behaviour Society.

Posters:

Santangelo, N. & A.H. Bass. 2006. Neuropeptide Modulation of Aggression: Field Studies in a Territorial Tropical Damsel Fish Reveal Inverted U-Shaped Dose Function for Arginine Vasotocin (AVT). Cornell University. The Society for Behavioral Neuroendocrinology.

Santangelo, N. & A.H. Bass. 2005. AVT Facilitation of Aggression in a Territorial Damsel Fish. Cornell University. The Society for Behavioral Neuroendocrinology.

with undergraduates:

Ratnamalala, Nirmalee and Santangelo, N 2007. The effects of the neuropeptide arginine vasotocin (AVT) on male aggression in the monogamous convict cichlid, *Archocentrus nigrofasciatus*. Eastern Kentucky University. Kentucky Academy of Science

Ratnamalala, Nirmalee and Santangelo, N 2008. Angry dads: Male parental aggression as a measure of parental care and its modulation via the neuropeptide arginine vasotocin (AVT). Kentucky Posters at the Capitol.

Publications

Gagliardi-Seeley, J., Joseph Leese, **N. Santangelo**, & M. Itzkowitz. Mate choice in female convict cichlids (*Archocentrus nigrofasciatus*) and the relationship between male size and dominance. Submitted to *Ethology*.

Santangelo, N. & A.H. Bass. 2006. New insights into neuropeptide modulation of aggression: Field studies in a territorial tropical damselfish. *Proceedings of the Royal Society, Series B: Biological Sciences* 273: 3085-3092. (highlighted paper on Proceedings web site).

Santangelo, N. & M. Itzkowitz. 2006. How does competition influence mate choice decisions for males and females in the monogamous convict cichlid fish, *Archocentrus nigrofasciatus*? *Behaviour* 143: 619-642.

Richter, M, **N. Santangelo**, & Itzkowitz, M. 2005. Biparental division of roles in the convict cichlid fish: Influence of intruders numbers and locations. *Ethology, Ecology & Evolution* 17:1-15.

Santangelo, N. 2005. Courtship as communication; What are individuals saying to rejected and selected mates? *Animal Behaviour* 69: 143-149.

- Itzkowitz, M., **N. Santangelo**, A. Cleveland, A. Bockelman, & M. Richter. 2005. Is the selection of sex-typical parental roles based on an assessment process? A test in the monogamous convict cichlid fish. *Animal Behaviour* 69: 95-105.
- Santangelo, N** & M. Itzkowitz. 2004. Sex differences in the mate selection process of the monogamous, biparental convict cichlid, *Archocentrus nigrofasciatum*. *Behaviour* 141: 1041-1059.
- Itzkowitz, M., **N. Santangelo**, & M. Richter. 2003. How does a parent respond when its mate emphasizes the wrong role? A test using a monogamous fish. *Animal Behaviour* 66(5):863-869.
- Santangelo, N.**, M. Itzkowitz, M. Richter, & M.P. Haley. 2002. Resource attractiveness of the male Beaugregory damselfish and his decision to court or defend. *Behavioral Ecology* 13: 676-681.
- Itzkowitz, M, **N. Santangelo**, & M. Richter. 2001. How similar is the coordination of parental roles among different pairs? An examination of a monogamous fish. *Ethology* 108 (8): 727-738.
- Itzkowitz, M, **N.Santangelo**, & M. Richter. 2001. Parental division of labor in a monogamous fish: The shift from minimal to maximal role specialization. *Animal Behaviour*. 61(6): 1237-1245.
- Diruggiero, J, **N. Santangelo**, Z. Nackerdien, J. Ravel, F. T. Robb. 1997. Repair of extensive ionizing-radiation DNA damage at 95 degrees C in the hyperthermophilic archaeon *Pyrococcus furiosus*. *Journal of Bacteriology*, 179 (14): 4643-4645.