

DELIA S. SHELTON

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EDUCATION

2010-Present **Indiana University** Bloomington, IN

- Ph.d Cognitive Science, Psychology (Brain, Behavior, Neuroscience)

2009-2010 **Prairie View A&M University** Prairie View, TX

- Alternative Teacher Certification Program

2005-2009 **Southwestern University** Georgetown, TX

- B.S., Animal Behavior, minor Spanish, May 2009 GPA 3.61/4.0 Major GPA 3.73/4.0 (168 credit hours)
- ISEP Study Abroad: Universidad Nacional (Costa Rica, Fall 2008); University of Ghana (Ghana, Spring 2009)

2003-2005 **University of North Texas** Denton, TX

- Texas Academy of Mathematics and Sciences (TAMS) GPA 3.6/4.0

RELEVANT SKILLS

Laboratory: Fish, Exotic and Agriculture animal husbandry, Small laboratory animal surgeries, video play-back techniques, animal trapping, animatronics, animal tracking software, Med-associates software, mechanical and electrical wiring, western blot techniques, small and large animal surgeries.

Computer: PC and Mac: Windows, Microsoft Word, PowerPoint, Excel, SPSS, SAS, Sigma Plot, Photoshop, iMovie, Event Recorder Software, JMP 6.0, Odyssey (2.1), Netlogo, R statistical programming software, Invitrogen iBlot, & hand held GPS.

Languages: Spanish (advanced proficiency), Twi & Ewe (beginning proficiency)

EXPERIENCE

2010-Present Indiana University-Psychological and Brain Sciences, Cognitive Sciences Bloomington, IN

Ph.D., Graduate Student

- Jeffrey Alberts' lab: Animal Behavior Laboratory

2009-2010 **Sam Houston Math Science and Technology Center (Houston I.S.D)** Houston, TX

Science Teacher (Integrated Physics and Chemistry I.P.C)

- Conducted large and small group student instruction and workshops
- Conducted various professional development workshops for IPC team and department members
- Analyzed student data and coordinated intervention and tutorials
- Researched innovative lessons and laboratory experiments that could be modified to address student's levels
- Developed and conducted enrichment lesson and units with particular emphasis on science and technology using Clear Curriculum (HAPG).
- Ensured alignment of lessons with TEKS objectives
- Monitored student progress for graduation and course completion
- Provided accurate record keeping

2009 **University of Ghana: Oceanography and Fisheries** Legon, Ghana

- Identified problems in the local fishing industry. Surveyed fish populations, and major fishing areas along the coast.

2008 **INBIO Parque** Heredia, Costa Rica

- Managed Butterfly colony, tended to husbandry of exotic and endangered amphibians.

2008 **Merck Research Laboratories** Boston, MA

- Optimized quantification methods for western blots involving proteins obtained from hemes of transgenic mouse brains, as a means for early detection of Alzheimer's symptoms (i.e., phosphorylated Tau, plaques, tangles, etc.).

2005-2008 **Aquatic Animal Laboratory- Southwestern University** Georgetown, TX

Research Assistant -Academic School Term

- Examined how the characteristics of the US influence in the CS in schools of mummichogs (*Fundulus heteroclitus*), a small bait fish. Modified a commercial robotic shark by equipping it with a camera and light element. Developed a more suitable and efficient aquatic and aerial predator to look at hybrid school formations. One refereed publication and poster presentation from this research

- Developed, modified and applied novel husbandry procedures for several species of cuttlefish (*Sepia officianlis*, *Sepia pharaonis*), salt and freshwater fish.
- 2007 **Merck Research Laboratories** Boston, MA
Research Assistant –Summer Intern
- Developed a behavioral assay to measure attention in mice for use as an Alzheimer’s model. Learned and conducted procedures involving radial arm maze, operant procedures, rotorod testing, contextual fear conditioning, circadian rhythm and small animal surgeries.
- Presented study at the Neuroscience Drug Discovery meeting.
- Scientific paper currently in preparation.
- 2006 **Alliance of Graduate Education and the Professoriate (AGEP) Rice University** Houston, TX
Research Associate- Summer Intern
- Continuation of behavioral research on Indochinese Tigers. One publication submitted to a refereed journal.
- Presented findings at annual banquet and poster session.
- 2005 **Alliance of Graduate Education and the Professoriate (AGEP) Rice University** Houston, TX
Research Associate- Summer Intern
- Developed a novel feeding plan for Indochinese Tigers at the Houston Zoo Inc.
- Presented research at annual poster session.
- 2004 **NSF REU- Center for Integrative Study of Animal Behavior (C.I.S.A.B.)-Indiana University** Bloomington, IN
Research Associate-Summer Intern
- Studied audience affect and employed video-playback technique in fish. One publication submitted to a refereed journal.
- 2003 -2004 **NSF-Bringing up Girls in Science (BUGS/NSF)** Denton, TX
Mentor – Academic Calendar
- Provided mentoring to 4th-5th grade girls on opportunities in Science.
- 2003-Present **3D Mathematics Academy** Prairie View , TX
Student Mentor & Tutor-Summer; Intermittent; Charter Member
- Advised elementary and middle school youth on academic planning.
- Tutored youth in basic and advanced mathematic concepts.
- 1997-2003 **Waller County Extension Programs** Prairie View , TX
Competitor-Year round
- Competed in over 100 4-H and FFA events related to livestock judging and forage management. Won State level events in several categories. Showed livestock in county, State and International venues

PUBLICATIONS

- Dzieweczynski T.L., Bessler A.M., **Shelton D.S.**, & Rowland W.J., 2006. Effect of a Dummy Audience on Male–Male Interactions in Siamese fighting fish, *Betta splendens*. *Ethology* 112:2, 127-136
- **Shelton, D.S.**, 2008. Life on the Farm through out the Generations. In: Anderson A. (Eds.), *The People and the Land*. (pp. 262-263). *University of Texas Press*. (in press).
- Dillon, G.M, **Shelton, D.**, McKinney A.P., Caniga M., Marcus J.N., Ferguson M.T., Kornecook T.J., & Dodart, J.C., 2009. Prefrontal cortex lesions and scopolamine impair attention performance of C57BL/6 mice in a novel 2-choice visual discrimination task, *Behavioral Brain Research*, 204, 67-76.
- **Shelton D.S.**, Lee K.H., McDonald J.D., Mingle M.E., Winland C.D., & Purdy J.E. 2009. Stay In School or Drop Out What is a Fish to Do?: defensive strategies of teleost fish (in prep).

GRANTS/ FELLOWSHIPS

- 2010 National Science Foundation Graduate Research Fellowship: The Biological Constraints of Learning in Fathead Minnows (*Pimphales promelas*)
- 2010 Indiana University Graduate Scholars Fellowship-declined
- 2010 Brain-Body-Environment Systems IGERT, Indiana University
- 2009 Project Grad Innovative Grant (\$1000).
- UNCF· MERCK Undergraduate Science and Research Scholarship Award- 2007. Departmental Grant (\$10,000)
- **Shelton, D.S.**, Decker, H., Christian, L., & Purdy, J.E. 2006-2007. I Am A Real Shark!, Competitive funding King Creativity Fund, Southwestern University (\$2,140).
- Paideia Scholar Research Grant. 2005. (\$1,000).

PRESENTATIONS

- Animal Behavior Society (ABS) 45th Annual International Meeting/Conference, 16 August - 20 August 2008, Snowbird, Utah. “Under the Bottom and Over the Top: Defensive strategies of mummichogs (*Fundulus heteroclitus*)”.
- Southwestern Comparative Psychological Association, March, 2008. Georgetown, TX. “Stay in School or Drop Out, What is a Fish to do?”
- UNCF~Merck Fellows Symposium July, 2008, Philadelphia, PA. **Poster presented:** “Stay in School or Drop Out, What is a Fish to do?: Antipredatory strategies of teleost fish”.
- Neuroscience Drug Discovery Meeting, Boston, MA. 2007. **Podium presentation:** The Development of an Attention Assay.

- Southwestern Undergraduate Creative Works and Research Symposium, February, 2007. Georgetown, TX. **Poster presented:** “I Am A Real Shark!”.
- Southwestern University Paideia Symposium 2007. Georgetown, TX. “Landscaping the History of War and Peace”.
- Southwestern Undergraduate Creative Works and Research Symposium, February 2006. Georgetown, TX. “An Evaluation of the Video Playback Technique in Siamese Fighting fish (*Betta splendens*)”.
- Animal Behavior Society (ABS) 44th Annual International Meeting/Conference, 21-25 July 2007, Burlington, VT. “The Behavioral Effect of Several Enrichment Conditions in Indo-Chinese Tigers (*Tigris corbetti*)”.
- Animal Behavior Society (ABS) 43rd Annual International Meeting/Conference, 12-16 August 2006, Snowbird, Utah. “An Evaluation of the Video Playback Technique in Siamese Fighting fish (*Betta splendens*)”.
- Rice University AGEP July 2006, Houston, TX. **Poster presented** “The Behavioral Effect of Several Enrichment Conditions in Indo-Chinese Tigers (*Tigris corbetti*)”.
- Rice University AGEP July 2005, Houston, TX. **Poster presented** “An Evaluation of the Video Playback Technique in Siamese Fighting fish (*Betta splendens*)”.
- Indiana University REU/CISAB Conference July 2004, Bloomington, IA. **Poster presented** “An Evaluation of the Video Playback Technique in Siamese Fighting fish (*Betta splendens*)”.
- National Society for Black Chemist and Chemical Engineers Conference. Houston, TX. February 2004. **Poster presented** “Shapes Generate Numbers: The Final Part”.

PROFESSIONAL AFFILIATIONS

- Southwestern Psychological Association (SWPA) 2007-present
- Southwestern Comparative Psychological Association (SCPA) 2007-present
- Animal Behavior Society (ABS) 2005-present
- Junior Angus Association-2003-present

HONORS

- Dean’s Honor Roll 5 semesters - Southwestern University
- Southwestern University Animal Behavior Student of the Year -2009
- Dixon and Mood Scholar Southwestern University- 2005-2009
- UNCF~MERCK Fellow-2007
- Animal Behavior Society Charles H. Turner Travel Award- Summer 2005; Summer 2006; Summer 2008
- Southwestern University Animal Behavior Society (Student Representative)-2007-2008
- Texas Academy Mathematics & Science, Medical Society (President)-2004-2005; organization received most improved club award
- Empowering Blacks and Others to Never Yield (E.B.O.N.Y.)- Dolas Committee head– 2005-2006; Secretary 2006-2007;
- Multicultural Council Representative 2007-2008
- Paideia Scholar 2005-2009
- Theatre for Social Justice (T.S.J.)- 2006-2008
- Students Helping Admissions Recruit Prospects (SHARP), Southwestern University– 2005-2008
- Elementary Youth STEM Mentor -2003-present