CURRICULUM VITAE

LAINY BAIRD DAY

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EDUCATION

1988 – 1992	BA, Evolutionary Psychology. New College of Florida, Sarasota, FL, USA
1992 – 1994	MA, Cognition and Perception: Dept. of Psychology University of Texas, Austin, TX, USA
1994 - 1999	PhD., Behavioral Neuroscience: Dept. of Psychology University of Texas, Austin, TX, USA

POSITIONS

2006 -	Assistant Professor Dept. of Biology University of Mississippi, Oxford, MS, USA
2004 - 2006	Postdoctoral Fellow (2004), Research Associate (2005) Dept. of Physiological Science University of California, Los Angeles, CA, USA
1999 – 2004	Postdoctoral Fellow Dept. Psychology and Dept. of Ecology, Evolution and Marine Biology University of California, Santa Barbara, CA, USA

AWARDS, GRANTS, AND FELLOWSHIPS

2007	College of Liberal Arts Summer Research Grant, Univ. of Mississippi
2006	Office of the Provost Research Grant, Univ. of Mississippi
2006	Faculty Research Program Grant, Univ. of Mississippi
2001 – 2004	NSF, IOS 0089954, Visual Signal Design, Perception and Mating Success in Bowerbirds, co-written with PI, John Endler
1999 - 2002	Postdoctoral National Research Service Award, National Institutes of Health
1997 - 1999	Predoctoral National Research Service Award, National Institutes of Health
1996 - 1999	University of Texas Tuition Fellowship
1996	National Institute of Mental Health Predoctoral Training Grant
1995	University of Texas Research Institute Grant with Walter Wilczynski
1991	New College Travel Grant
1988 – 1992	New College Foundation Scholarship

PRE-FACULTY RESEARCH EXPERIENCE

My work centers on the evolution and neural substrates of spatial and motor learning in a variety of vertebrate models.

Aug 1990 - May 1992	Ecological and Cultural Determinants of Navigational Abilities in Humans Advisor: David Smillie, New College of Florida

Aug 1992- June 1994	Evolution of Primate Cerebral Laterality for Spatial Skills and Communication Advisor: Peter MacNeilage, University of Texas, Austin
July 1994 - Dec 1998	Role of the Hippocampus in Stereotypical Behavior in Rats Advisor: Timothy Schallert, University of Texas, Austin
Oct 1994 - May 1999	Evolution of the Hippocampus: Role of the Cortex in Lizards Advisors: David Crews & Walter Wilczynski, University of Texas, Austin
Jan 2000–	Experiential and Developmental Effects on Hippocampal Size in Cowbirds Advisors: Stephen Rothstein & Deborah Olster, University of California, Santa Barbara.
July 1999– Feb 2004	Behavior, Hormone, and Brain Adaptations for Bower Complexity in Bowerbirds Advisors: John Endler & Deborah Olster, University of California, Santa Barbara
March 2004- June 2006	Hormonal and Neural Regulation of an Acrobatic Courtship Display in Manakins Advisor: Barney Schlinger, University of California, Los Angeles

TEACHING EXPERIENCE

1992 – 1997	**Teaching Assistant, Univ. of Texas, Austin**
Summary	Biopsychology, Cognition, Perception, Psycholinguistics, Statistics and Experimental Design, Cognition Seminar, Motivation, Human Evolution, Psychology of Sex, Advanced Experimental Design
1993 - 1998	**Undergraduate Research Course***:* **Univ. of Texas, Austin** Advised over 40 undergraduates individually or in small groups.
Spring 1998	**Undergraduate Thesis Advisor**: Univ of Texas, Austin The Effects of Anticholinergics in Frogs, Staci Bilbo
Spring 1998	**Assistant Instructor***:* Biopsychology*,* Univ of Texas, Austin
Oct 2000,'01,'03	**Guest Lecturer**: Tropical Australian Herpetology, James Cook University, Townsville, Queensland, AUS.
Dec 2000,'01	**Guest Lecturer**: Field Biology and Animal Adaptation, James Cook University, Townsville, Queensland, AUS
Spring 2001	**Undergraduate Research Course**: UC Santa Barbara, two students
2004-	**Undergraduate Research Course**: UC Los Angeles, three students
2004-2005	**Undergraduate Thesis Advisor:** Univ de Panama, The Effects of Vasotocin and Vasotocin Antagonist on Manakin Display Behavior, Estefania Hernandez.
2006-	Advanced Neuroscience, Introductory Neuroscience, Functional Neuroanatomy

SOCIETY MEMBERSHIPS

Animal Behavior Society**,** Human Behavior and Evolution Society, J. B. Johnston Club - Comparative Neuroanatomy, Society for Neuroscience, Society for Behavioral Neuroendocrinology

REVIEWER

Brain Research
Brain, Behavior and Evolution
The American Naturalist
Hormones and Behavior
Journal of Comparative Psychology
The Journal of Herpetology

PUBLICATIONS

Reviewed Manuscripts

Day LB & Schallert T 1996. Anticholinergic effects on place learning in the Morris Water Task: Spatial mapping deficit or inability to inhibit nonplace strategies. Behavioral Neuroscience, 110(5), 998-1005.

Day LB & MacNeilage PF 1996. Limb preference and cerebral hemispheric specializations. Journal of Comparative Psychology, 110(1), 88-96.

Day LB, Weisend M, Sutherland RJ & Schallert T 1999. The hippocampus is not necessary for a place response but may be necessary for pliancy. Behavioral Neuroscience, 133(5), 914-924.

Day LB, Crews D & Wilczynski W 1999. Spatial and reversal learning in congeneric lizards with different foraging strategies. Animal Behaviour, 57, 395-407.

Day LB, Crews D & Wilczynski W 1999. Relative medial and dorsal cortex volume in relation to foraging strategy in congeneric lizards. Brain, Behavior and Evolution, 54, 314-322.

Bilbo S, **Day LB** & Wilczynski W 2000. The effects of anticholinergics on a visual and hidden platform analog of the Morris water task in frogs. Physiology and Behavior, 69(3), 351-357.

Day LB, Crews D & Wilczynski W 2001. Effects of medial and dorsal cortex lesions on spatial memory in lizards. Behavioural Brain Research, 118 (1), 27-42.

Day LB 2003. The importance of hippocampal-dependent non-spatial tasks in analyses of homology and homoplasy. Brain, Behavior and Evolution, 62, 96-107.

Day LB, Ismail, N & Wilczynski W 2003. Use of position and feature cues in discrimination learning by the lizard *Cnemidophorus inornatus*. Journal of Comparative Psychology, 117, 440-448.

Day LB, Westcott DA & Olster DH 2005. Evolution of bower complexity and cerebellum size in bowerbirds. Brain, Behavior and Evolution, 66, 62-72.

Day LB, McBroom JT, Schlinger BA 2006. Testosterone increases display behaviors but does not stimulate growth of adult plumage in male golden-collared manakins (*Manacus vitellinus*). Hormones and Behavior, 49, 223-232.

Endler, JA and **Day LB** 2006. Ornament colour selection, visual contrast, and the shape of colour preference functions in great bowerbirds (*Chlamydera nuchalis*). Animal Behavior, 72, 1405-1416.

Day LB, Fusani L, Hernandez E, Billo, TJ, Sheldon, KS, Wise, PM, Schlinger BA 2007. Testosterone and its effects on courtship in Golden-Collared Manakins (*Manacus vitellinus*): Seasonal, sex, and age differences. Hormones and Behavior, 51, 69-76.

Fusani L, **Day LB**, Canoine V, Reinemann D, Hernandez E, Schlinger BA 2007. Androgen and the elaborate courtship behavior of a tropical lekking bird. Hormones and Behavior, 51, 62-68.

Fusani L, Giordano M, **Day LB**, Schlinger BA 2007 .High-speed video analysis reveals individual variability in the courtship displays of male Golden-collared manakins. Ethology, 113, 964-972.

Peterson RS, Fernando G, **Day L**, Allen TA, Chapleau JD, Menjivar J, Schlinger BA, Lee DW 2007. Aromatase expression and cell proliferation following injury of the adult zebra finch hippocampus. Developmental Neurobiology, 67(14), 1867-1878.

Schlinger BA, Fusani L, & **Day LB** 2008. Hormonal Control of Courtship in Male Golden Collared Manakins (*Manacus Vitellinus*). Ornitologia Neotropical, 19 (Suppl.), 229-239.

Day LB, Guerra M, Schlinger BA, Rothstein SI 2008. Sex differences in the effects of captivity on hippocampus size in brown-headed cowbirds (*Molothrus ater obscurus)*. Behavioral Neuroscience, 122(3), 527-534.

Schlinger BA, **Day LB**, & Fusani L. 2008. Natural History, Behavior and Neuroendocrinology of a Tropical Bird. General and Comparative Endocrinology. 157(3), 254-258.

Vaka SRK, Sammeta SM, Day LB & Murthy SN 2008. Transcorneal Iontophoresis for Delivery of Ciprofloxacin Hydrochloride. Current Eye Research, 33(8), 661-667.

Spence RD, Zhen Y, White S, Schlinger BA & **Day LB** 2009. Recovery of motor and cognitive function after cerebellar lesions in a songbird role of estrogens. European Journal of Neuroscience, 29, 1225-1234.

Vaka SRK, Sammeta SM, **Day LB** & Murthy SN 2009. Delivery of nerve growth factor to brain via intranasal administration and enhancement of brain uptake. Journal of Pharmaceutical Sciences, 98(10), 3640-3646.

Kunstner A, Wolf JB, Backstrom N, Whitney O, Balakrishnan CN, **Day LB**, et al. 2010. Comparative genomics based on massive parallel transcriptome sequencing reveals patterns of substitution and selection across 10 bird species. Molecular Ecology, 19 Suppl 1, 266-276.

Feng N, Katz A, **Day LB**, Schlinger BA. Limb Muscles are Androgen Targets in an Acrobatic Tropical Bird. Endocrinology, 151(3), 1042-1049.

Edited Volume

Powers AS and **Day LB** 2003. Perspectives on the evolution of cognition. Karger Symposium Special Issue. Brain, Behavior and Evolution, 62.

Submitted (Drafts Available)

Day LB The effects of ecology on spatial abilities: Cognitive adaptation exemplified by Aboriginal Australians. Being revised for resubmission.

Day LB, Wade J, Wilczynski W, Crews D. Sex steroids influence the size of a non-sexually dimorphic cortical learning area in reptiles. Being revised for resubmission.

Manuscripts in Preparation

Day LB, Ewen J, Asthmier L, Wingfield J, and Endler JA. Hormonal correlates of display and morphology in great bowerbirds.

Day LB Decision making and location preference for colored ornaments in great bowerbirds.

PRESENTATIONS

Poster Presentations

1995 Day LB, Crews D & Wilczynski W. Hemispheric lateralization of the lateral cortex in lizards, *Cnemidophorus inornatus* and *C. uniparens*. San Diego: Society for Neuroscience. Society for Neuroscience Abstracts, 21 (1), 432, 1995.

1996 Schallert T, Day LB, Weisend M & Sutherland RJ. Spatial learning by hippocampal rats in the Morris Water Task. Washington, D.C.: Society for Neuroscience. Society for Neuroscience Abstracts, 22(1), 678, 1996.

1996 Day LB, Wilczynski W, Crews D. Foraging strategy and spatial memory in lizards. Washington, D.C.: Society for Neuroscience, Society for Neuroscience Abstracts, 22(1), 448, 1996.

1997 Day LB, Crews D & Wilczynski W. Hippocampal cortex volume is related to foraging strategy and behavioral flexibility but not spatial memory in lizards. New Orleans: Society for Neuroscience. Society for Neuroscience Abstracts, 23(2), 2134, 1997.

1998 Day LB, Kapila R, Johnson A, Crews D & Wilczynski W. Foraging ecology predicts medial and dorsal cortex volume and behavior in lizards. San Diego: International Congress of Neuroethology, 1998.

1998 Day LB, Crews D & Wilczynski W. Medial and dorsal cortex function in non-spatial solutions to a spatial maze in lizards. Los Angeles: Society for Neuroscience. Society for Neuroscience Abstracts, 24(2) 1258, 1998.

2002 Day LB, Westcott D, Ewen J, Wingfield J, Endler J, Olster DH. Neural and hormonal correlates of display in bowerbirds, *Ptilonorhynchidae*. Program No. 877.1. Abstract viewer/itinerary planner CD-ROM. Orlando: Society for Neuroscience, 2002.

2003 Day LB, Olster DH. Androgen receptor distribution and seasonal brain volume changes in great bowerbirds. Program No. 200.7. Abstract viewer/itinerary planner CD-ROM New Orleans: Society for Neuroscience, 2003.

2005 Day LB**,** McBroom JT, Schlinger BA. Testosterone increases courtship behavior but does not stimulate growth of adult plumage pattern in male golden-collared manakins (*Manacus vitellinus*). Hormones and Behavior, 48(1) 96, 2005.

2005 Day LB, Fusani L, Schlinger BA. Sex differences in brain areas related to courtship display in manakins Program No. 762.9. Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience, 2005. Online.

Symposium Organizer

2002 Karger Symposium: Evolutionary Perspectives in Cognition. Orlando, November. With Alice S. Powers.

Invited Symposium Speaker

2002 Evolution of neural systems for spatial cognition: foraging ecology in lizards and bower complexity in bowerbirds. J. B. Johnston Society Karger Symposium: Evolutionary Perspectives in Cognition. Orlando, November.

Invited Talks

1999 Lizards in space: Foraging ecology and the function of cortical brain regions. Department of Zoology and Tropical Biology, James Cook University, Townsville, QLD, Australia.

2001 A birds eye view of color space. Department of Zoology and Tropical Biology, James Cook University, Townsville, QLD, Australia.

2002 Evolution of neural systems for spatial cognition. Department of Psychology, University of Washington, Seattle, WA.

2002 Evolution of neural systems for spatial cognition. Department of Psychology, University of Pennsylvania, Philadelphia, PA.

2003 Behavior, Brain, and Evolution in Bowerbirds. Department of Psychology, Texas Christian University, Fort Worth, TX.

2003 Behavior, Brain, and Evolution in Bowerbirds. Department of Biology, Lehigh University, Bethlehem, PA.

2003 Behavior, Brain, and Evolution in Bowerbirds. Department of Biology, University of Cincinnati, Cincinnati, OH.

2003 Behavior, Brain, and Evolution in Bowerbirds. Department of Zoology, Texas A&M University, College Station, TX.

2003 Behavior, Brain, and Evolution in Bowerbirds. Neuroendocrine and Behavior Group, University of California, Los Angeles, CA.

2004 Neural and Hormonal Adaptations for Complex Displays. Western Kentucky University, Bowling Green, KY.

2005 Neural and Hormonal Adaptations for Complex Displays. Department of Psychology, SUNY, Buffalo, NY.

Conference Speaker

1992 The effects of eco-cultural variables on spatial orientation. Carolinas Psychology Conference, Raleigh, NC, June.

1997 The effects of ecology on path integration abilities: A cognitive adaptation exemplified by Aboriginal Australians. Human Behavior and Evolution Society, Tucson, AZ, June.

Seminar Speaker

1995 Structural and functional homologies between the lizard medial cortex and the avian and mammalian hippocampus. Reproductive Biology Seminar, Austin, TX, March.

1995 Fluid intelligence in the Morris Water Maze displayed by atropine treated rats. Behavioral Neuroscience Seminar, Austin, TX, September.

1996 Lizard cognition and other obscene thoughts: behavioral correlates of medial cortex function and foraging strategies in lizards. Physiology and Behavior Seminar, Austin, TX, September.

1997 Hippocampal discourse without neocortical dialogue. Behavioral Neuroscience Seminar, Austin, TX, January.

1997 The effects of ecology on path integration abilities: A cognitive adaptation exemplified by Aboriginal Australians. Behavioral Neuroscience Seminar, Austin, TX, September.

1998 Medial and dorsal cortex function and foraging strategy in congeneric lizard species. Reproductive Biology Seminar, Austin, TX, October.

1999 Medial and dorsal cortex function and foraging strategies in lizards. Neuroscience and Behavior Seminar, University of California, Santa Barbara, CA, April.

2002 Behavioural and neural adaptations for bower building in bowerbirds. Cerebellar Neural Plasticity Seminar, James Cook University, Townsville, QLD, Australia, April.

2004 Sex in the tropics: Hormonal regulation of mating displays in tropical birds. Song Bird Lunch, University of California, Los Angeles, CA, December.

REFERENCES

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