

Curriculum Vitae

Brian Scott Nelson

Present address:

Institute of Neuroscience
1254 University of Oregon
Eugene, OR 97403-1254

telephone: (541) 510-4190
email: bsnelson@uoregon.edu

Education:

B.S. Wildlife Science, Department of Renewable Natural Resources, University of Arizona, 1993
M.S. Biology, Department of Biological Sciences, Florida International University, 1998
Ph.D. Evolution, Ecology & Behavior, Department of Biology, Indiana University, 2004

Research Interests:

Sound localization, Evolution of acoustic communication, Neuroethology, Vocal production mechanisms, Animal behavior

Grants:

Research Fellowship, National Institutes of Health, Ruth L. Kirschstein National Research Service Award, 5F32DC008267-03, (2006)

Awards:

First Prize Best Student Paper Award in Bioacoustics, Meeting of the Acoustical Society of America, Chicago, IL, June, 2001
Best Student Presentation Award, Conference of the Center for the Integrative Study of Animal Behavior, Indiana University, Bloomington, IN 2000
Research Assistantship, Center for the Integrative Study of Animal Behavior, Fall 1999, Spring 2000, Fall 2000 and Spring 2001
Summer Fellowship, Center for the Integrative Study of Animal Behavior, Summer 1998, 1999, 2000, 2001 and 2002

Publications:

Takahashi TT, Keller CH, **Nelson** BS, Spitzer MW, Bala ADS, Whitchurch EA (2008) Object localization in cluttered acoustical environments. *Biological Cybernetics*. 98, 579-586
Suthers RA, Beckers GJL, and **Nelson** BS (2006) Vocal Mechanisms for Avian Communication. In: *Behavior and Neurodynamics for Auditory Communication* (Ed. by Kanwal JS and Ehret). Cambridge University Press
Nelson BS, Beckers GJL & Suthers RA (2005) Sound radiation and vocal tract filtering in the eastern towhee. *Journal of Experimental Biology*, 208, 297-308
Kolodziejcki H, **Nelson** BS, and Smith TG (2005) Sex and species differences in neuromodulatory input to a premotor nucleus: A comparative study of substance P and communication behavior in weakly electric fish. *Journal of Neurobiology*. 62, 299-315
Nelson BS and Suthers RA (2004). Sound localization in a small passerine bird: discrimination of azimuth as a function of head orientation and sound frequency. *Journal of Experimental Biology* 207, 4121-4133
Beckers GJL, **Nelson** BS, and Suthers RA (2004). Vocal tract filtering by lingual articulation in a parrot. *Current Biology* 14, 1592-1597
Nelson BS (2004). Dynamics of frequency and amplitude modulations in vocalizations produced by eastern towhees, *Pipilo erythrophthalmus*. *Journal of the Acoustical Society of America*. 115, 1333-1344.
Nelson BS (2003) Reliability of sound attenuation in Florida scrub habitat and behavioral implications. *Journal of the Acoustical Society of America* 113, 2900-2910

- Nelson BS** (2002) Duplex auditory distance assessment in a small passerine bird (*Pipilo erythrophthalmus*). *Behavioral Ecology and Sociobiology* 53, 42-50
- Nelson BS** (2000) Avian dependence on sound-pressure level as an auditory distance cue, *Animal Behaviour* 59, 57-67
- Nelson BS** and Stoddard PK, (1998) Accuracy of auditory distance and azimuth perception by a passerine bird in natural habitat, *Animal Behaviour* 56, 467-477
- Woofenden GE, Pranty B, Fitzpatrick JW, and **Nelson BS** (1996) Western wood-pewee recorded in highlands county, Florida, *Florida Field Naturalist* 24, 61-92

Manuscripts submitted or in preparation:

- Nelson BS & Takahashi TT Independence of echo-threshold and echo-delay in the barn owl
- Nelson BS & Takahashi TT Localization of amplitude modulated sounds and their reflections in the barn owl

Papers Presented Recently at Scientific Meetings:

- Nelson BS & Takahashi TT The end of localization dominance in the barn owl. Mid Winter Meeting of the Association for research in Otolaryngology, February 16-21, 2008, Phoenix, Arizona
- Nelson BS & Takahashi TT Effects of amplitude modulation on the localization of direct sounds and reflections with synchronized onsets and offsets in the barn owl. . Mid Winter Meeting of the Association for research in Otolaryngology, February 16-21, 2008, Phoenix, Arizona
- Nelson BS & Takahashi TT Recovery from localization dominance in the barn owl. 154th Meeting of the Acoustical Society of America, November 27-30, 2007, New Orleans, Louisiana

Invited Presentations:

- Nelson BS & Takahashi TT Recovery from localization dominance in the barn owl. 154th Meeting of the Acoustical Society of America, November 27-30, 2007, New Orleans, Louisiana
- Nelson BS Sound frequency channels for communication in a small songbird. Portland State University, Portland, OR, May 15, 2006
- Nelson BS Sound localization in a small bird and implications for communication in natural habitat. Oberlin College, Oberlin, OH, April 26, 2002

Service:

- Referee for: Animal Behavior, Behavior, Behavioral Processes, Behavioral Ecology and Sociobiology, Canadian Journal of Zoology, Journal of Comparative Psychology, and Journal of the Acoustical Society of America, National Science foundation

Employment:

- Student Internship, Archbold Biological Station, January 1994 to July 1994
- Teaching Assistant, Dept of Biological Sciences, Florida International University, 1994, 1995 and 1996.
- Associate Instructor, Dept of Biology, Indiana University, 1998, 1999, 2002 and 2003

Courses Taught:

- General Biology Laboratory I, Department of Biological Sciences, Florida International University.
- General Biology Laboratory II, Department of Biological Sciences, Florida International University.
- Ecology Laboratory, Department of Biological Sciences, Florida International University.
- Biology Laboratory, Associate instructor, Department of Biology, Indiana University
- Biological Basis of Sex differences, Associate instructor, Department of Biology, Indiana University

Scientific Organization Affiliation:

- Acoustical Society of America, Association for research in Otolaryngology, Animal Behaviour Society