



Daniel R. Howard

GRFP Recipient: 2004

Undergraduate Institution:
B.S. 2002, Northeastern State
University

Graduate Institution:
M.S. 2004, Northeastern State
University
Ph.D. 2007, University of Tulsa

NSF Minority Postdoctoral
Research Fellow, University of
Toronto (2007-2010)

Graduate Field of Study:
Biological Sciences

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Current Position:
Assistant Professor of Biology,
Augustana College, Sioux Falls,
South Dakota

RESEARCH INTERESTS //

Daniel R. Howard conducts field and laboratory research focused on questions that investigate how insects receive, process and respond to acoustic and vibrational sensory stimuli. Howard's interests include the mechanisms and evolution of behavior, and how animals evolve solutions to fitness-related problems associated with communication, reproduction, predator avoidance, response to stochastic ecological conditions, and human-induced response to environmental change.

BROADER IMPACTS OF MY WORK ON SOCIETY //

Dr. Howard focuses his research mentorship on broadening participation among historically underrepresented groups, with a special focus on the recruitment of students of American Indian heritage into the STEM fields. Howard, an enrolled member of the Cherokee Nation, acts as faculty sponsor for the Augustana College chapter of the American Indian Science and Engineering Society (AISES). Howard conducts his field work on tribal lands in Oklahoma and New Zealand, and works to recruit tribal youth into research and teaching careers in the biosciences.

A PERSONAL ANECDOTE OF THE BENEFIT FROM THE GRF PROGRAM //

"The NSF Graduate Research Fellowship Program opened portals of opportunity to me for which I was previously unaware. Through the NSF-GRFP I became acquainted and worked with many mentors that deeply influenced my research and career trajectories. I am quite sure that I would not be where I am today without having participated in this transformational program"

A FOND MEMORY FROM MY EXPERIENCE AS A FELLOW //

My fondest memories as an NSF Graduate Research Fellow revolve around the many scientific meetings that I was able to attend during my tenure in the program. It was at these meetings that I often met and compared notes with other GRF participants, all of whom seemingly shared a passion for both the intellectual merit and broader impacts of their research.

AWARDS/ HONORS //

- Induction into Sigma Xi International Scientific Honor Society (2009)
- Diversity Scholar Award, American Institute of Biological Sciences (2006)
- National Teacher of the Year Award, RadioShack (2004)
- New Teacher of the Year Award, Tahlequah Public Schools (2003)
- Academic Hall of Fame Inductee, Northeastern State University (2002)
- U.S. Department of Education Native Scholar (2000-2002)
- U.S. National Science Foundation funded O-TEC scholarship recipient (1999-2002)

POSITION PROFILE //

After completing his Ph.D. in the Biological Sciences under the support of the GRFP, Dr. Howard worked for three years as a NSF Postdoctoral Research Fellow in the Integrative Behavior and Neuroscience laboratory at the University of Toronto at Scarborough. Dr. Howard joined the Augustana College Biology Department in the fall of 2010, and teaches Introductory Biology, Animal Behavior, Evolution, and New Zealand Culture and Biogeography (study abroad). His research is focused on the evolution of behavior, with a special interest in animal communication, mating systems and neuroethology. Howard also studies the effects of natural and anthropogenic disturbance on the behavior of threatened and endangered species.