

Amanda Dawn Melin

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Department of Anthropology
 Washington University
 One Brookings Drive
 Saint Louis, MO, 63130
 United States

Primate Evolution, Sensory Ecology, Molecular Genetics & Genomics, Foraging Behavior

PROFESSIONAL APPOINTMENTS

Assistant Professor	2014-present
<i>Department of Anthropology</i>	
Washington University, St. Louis, Missouri, USA 63130	
Postdoctoral Fellow	2011-2013
<i>Department of Anthropology</i>	
Dartmouth College, Hanover, New Hampshire, USA 03755	
Visiting Research Scientist	2010
<i>Department of Integrated Biosciences</i>	
University of Tokyo, Kashiwa, Chiba, Japan 277-8562	

EDUCATION

Doctor of Philosophy	2006-2011
<i>Department of Anthropology</i>	
University of Calgary, Calgary, Alberta, Canada	
Master of Arts	2003-2006
<i>Department of Anthropology</i>	
University of Calgary, Calgary, Alberta, Canada	
Bachelor of Science with Distinction	1998-2003
<i>Department of Biological Sciences</i>	
University of Calgary, Calgary, Alberta, Canada	

RESEARCH GRANTS AND AWARDS

Grants and Fellowships

NSF: "Patterns of Exchange of mycobacteria among wild animals and humans" Co-Principal Investigator <i>Pending</i>	To ADM: 2015-2020
	\$219 353 (USD)
NIH: "Unexpected hosts and zoonotic risk: the global spread and	To ADM: 2015-2019

adaptation of mycobacteria" Co-Investigator <i>Pending</i>	\$76 546 (USD)	
The Eppley Foundation Research Grant	\$29 189 (USD)	2014-2016
International Center for Advanced Renewable Energy and Sustainability (I-CARES) Grant	\$25 000 (USD)	2014-2015
NSERC Postdoctoral Fellowship	\$80 000 (CAD)	2012-2014
Clair Garber Goodman Research Fund	\$4 250 (USD)	2012
P.E.O Postdoctoral Scholar Award	\$15 000 (USD)	2011-2012
Wenner-Gren Dissertation Fieldwork Grant	\$17 139 (USD)	2009-2010
Alberta Odd Fellow Rebekah Visual Research Award	\$1 200 (CAD)	2009-2010
Sigma-Xi Grant-In-Aid of Research	\$500 (USD)	2008-2009
The Leakey Foundation General Research Grant	\$13 420 (USD)	2007-2009
NSERC Canada Graduate Scholarship, Doctoral	\$70 000 (CAD)	2007-2009
Animal Behavior Research Grant	\$1 000 (USD)	2007-2008
Alberta Ingenuity Fund Scholarship	\$106 000 (CAD)	2004-2009
NSERC Postgraduate Scholarship A, Masters	\$34 600 (CAD)	2003-2005
American Society of Primatologists Research Grant	\$1 500 (USD)	2004
<i>9 additional institutional awards during graduate work</i>	> \$57 000 (CAD)	2003-2011

Honors and Leadership Awards

NASA and National Geographic FameLab Science Communication National Finalist	2014
Elected Membership – Full member of Sigma Xi, The Scientific Research Society	2014
Alberta Citizenship Award	2011
Operation Minerva Mentor Recognition	2010
<i>5 additional student awards for communication and research excellence</i>	2001-2011

PUBLICATIONS

Journal Articles

Crowley BE, Melin AD , Dominy NJ. Oxygen stable isotope values reveal the physiological plasticity of neotropical mammals. <i>Oecologia</i> .	In Review
Mosdossy K, Melin AD , Fedigan LM. Quantifying seasonal fallback on invertebrates, pith and bromeliad leaves by white-faced capuchin monkeys (<i>Cebus capucinus</i>) in a tropical dry forest. <i>American Journal of Physical Anthropology</i> .	In Review
Valenta K, Brown KA, Rafaliarison RR, Styler SA, Jackson DA, Melin AD . Endemic fruit signals in Madagascar drive variation in <i>Eulemur fulvus</i> foraging behaviour and efficiency. <i>Behavioral Ecology and Sociobiology</i> .	In Review
Valenta K, Brown KA, Melin AD, Monckton SK, Styler SA, Jackson DA, Chapman CA. It's Not Easy Being Blue: A cost analysis of plant signal trade-offs. <i>PLoSOne</i> .	In Review
Valenta K, Edwards M, Rafaliarison RR, Johnson SE, Holmes SM, Dominy NJ, Lehman SM, Parra EJ, Melin AD . Primate cathemerality and origin of the primate cone opsin polymorphism. <i>Molecular Ecology</i> .	In Review
Melin AD , Danosi C, McCracken G, Dominy NJ. Dichromatic vision in a fruit bat with diurnal proclivities, the Samoan flying fox (<i>Pteropus samoensis</i>). <i>Journal of Comparative Physiology A</i> .	In Press

- Melin AD**, Crowley BE, Brown ST, Wheatley PV, Moritz GL, Tuh F, Bernard H, DePaolo DJ, Jacobson AD, Dominy NJ. Calcium and carbon stable isotope ratios as paleodietary indicators. *American Journal of Physical Anthropology*. DOI: 10.1002/ajpa.22530 **2014**
- Melin AD**, Young HC, Mosdosy K, Fedigan LM. Seasonality, extractive foraging, and the evolution of primate sensorimotor intelligence. *Journal of Human Evolution* 71: 77-86 **2014**
- Campos FA, Bergstrom ML, Childers A, Hogan JD, Jack KM, **Melin AD**, Mosdosy KN, Myers MS, Parr NA, Sargeant E, Schoof VAM, Fedigan LM. Drivers of home range characteristics across spatiotemporal scales in a Neotropical primate, *Cebus capucinus*. *Animal Behaviour* 91:93-109. **2014**
- Matsumoto Y, Hiramatsu C, Matsushita Y, Ozawa N, Ashino R, Nakata M, Kasagi S, Di Fiore A, Schaffner CM, Aureli F, **Melin AD**, Kawamura S. Evolutionary renovation of L/M opsin polymorphism confers a fruit discrimination advantage to ateline New World monkeys. *Molecular Ecology* 23: 1799-1812. **2014**
- Fedigan L, **Melin AD**, Addicott J, Kawamura S. The heterozygote superiority hypothesis for polymorphic color vision is not supported by long-term fitness data from wild Neotropical monkeys. *PLoSOne* 9: e84872. **2014**
- Brent LJN, **Melin, AD**. The Genetic Basis of Primate Behavior: Genetics and Genomics in Field-Based Primatology. *International Journal of Primatology* 35: 1-10. **2014**
- Melin AD**, Hiramatsu C, Parr NA, Matsushita Y, Kawamura S, Fedigan LM. The behavioral ecology of colour vision: considering fruit conspicuity, detection distance and dietary importance. *International Journal of Primatology* 35: 258–287. **2014**
- Valenta K, Burke RJ, Styler SA, Jackson DA, **Melin AD**, Lehman SM. Color and odour drive fruit selection and seed dispersal by mouse lemurs. *Scientific Reports* 3: 2424. **2013**
- Melin AD**, Kline D, Hickey CM, Fedigan L. Food search through the eyes of a monkey: a functional substitution approach for assessing the ecology of color vision. *Vision Research* 86: 87-96. **2013**
- Melin AD**, Matsushita Y, Moritz G, Dominy NJ, Kawamura S. Inferred M/L cone opsin polymorphism of ancestral tarsiers sheds dim light on the origin of anthropoid primates. *Proceedings of the Royal Society B*.208 no. 1759. **2013**
- Melin AD**, Moritz GL, Fosbury RA, Kawamura S, Dominy NJ. Why aye-ayes see blue. *American Journal of Primatology* 74: 185-192. **2012**
- Carnegie S, Fedigan L, **Melin AD**. Reproductive seasonality in female capuchins (*Cebus capucinus*) in Santa Rosa (Área de Conservación Guanacaste), Costa Rica. *International Journal of Primatology* 32: 1076-1090. **2011**
- Parr N, **Melin AD**, Fedigan LM. Figs are more than fallback foods: the relationship between *Ficus* and *Cebus* in a tropical dry forest. *International Journal of Zoology* 2011: 1-10. **2011**
- Lynch JW, Matthews L, Boyette A, Macfarlan SJ, Phillips KA, Falotico T, Ottoni E, Verderane M, Izar P, Schulte M, **Melin AD**, Fedigan L, Janson C, Alfaro M. Anointing variation across wild capuchin populations: A review of material preferences, bout frequency and anointing sociality in *Cebus* and *Sapajus*. *American Journal of Primatology* 73: 1-16. **2011**
- Melin AD**, Fedigan LM, Young HC, Kawamura S. Can color vision variation explain sex **2010**

- differences in invertebrate foraging by capuchin monkeys? *Current Zoology* 56: 300-312.
- Hiwatashi T, Okabe Y, Tsutsui T, Hiramatsu C, **Melin AD**, Oota H, Schaffner CM, Aureli F, Fedigan LM, Innan H, Kawamura S. An explicit signature of balancing selection for color vision variation in New World monkeys. *Molecular Biology and Evolution* 27: 453–464. **2010**
- Melin AD**, Fedigan LM, Hiramatsu C, Hiwatashi T, Parr N, Kawamura S. Fig foraging by dichromatic and trichromatic white-faced capuchin monkeys in a tropical dry forest. *International Journal of Primatology* 30: 753-775. **2009**
- Hiramatsu C, **Melin AD**, Aureli F, Schaffner CM, Vorobyev M, Kawamura S. Interplay of olfaction and vision in fruit foraging of spider monkeys. *Animal Behaviour* 77: 1421-1426. **2009**
- Hiramatsu C, **Melin AD**, Aureli F, Schaffner CM, Vorobyev M, Matsumoto Y, Kawamura S. Importance of achromatic contrast in short-range fruit foraging of primates. *PLoS One* 3: 1-12. **2008**
- Melin AD**, Fedigan LM, Hiramatsu C, Kawamura S. Polymorphic colour vision in white-faced capuchins (*Cebus capucinus*): Is there foraging niche divergence among phenotypes? *Behavioural Ecology and Sociobiology* 62: 659-670. **2008**
- Melin AD**, Fedigan L, Hiramatsu C, Sendall C, Kawamura S. Effects of colour vision phenotype on insect capture by a free-ranging population of white-faced capuchins (*Cebus capucinus*). *Animal Behaviour* 73: 205-214. **2007**
- Bergmann P, **Melin AD**, Russell A. 2006. Differential segmental growth of the vertebral column of the rat (*Rattus norvegicus*). *Zoology* 109: 54-65. **2006**
- Melin AD**, Bergmann P, Russell A. 2005. Mammalian postnatal growth estimates: the influence of weaning on the choice of a comparative metric. *Mammalogy* 86: 1042-1049. **2005**

Book Chapters

- Melin AD**, Hiramatsu C, Fedigan LM, Schaffner CM, Aureli F, Kawamura S. Polymorphism and adaptation of primate color vision. IN: *Evolutionary Biology: Mechanisms and Trends*. Pontarotti (ed). Springer, Heidelberg, Germany, p225-241. **2012**
- Valenta K, **Melin AD**. Protein limitation explains variation in primate colour vision phenotypes: a unified model for the evolution of primate trichromatic vision. IN *Zoology*, Maria-Dolores Garcia (Ed.), InTech, ISBN: 978-953-51-0360-8. **2012**
- Kawamura S, Hiramatsu C, **Melin AD**, Schaffner CM, Aureli F, Fedigan LM. Polymorphic color vision in primates: evolutionary considerations. In: *Post Genome Biology of Primates* Hirai H, Imai H, and Go Y. (eds). Springer, Tokyo, Japan : 93-120. **2012**

PRESENTATIONS AND SCIENCE COMMUNICATION

Selected Conference Contributions (those presented by A. Melin)

- Melin AD**, Moritz GL, Wells K, Danosi C, Matsushita Y, McCracken G, Kawamura S, Dominy NJ. **2014**

- Activity patterns, diet and the evolution of color vision in “Archonta”. Oral presentation at the 37th meeting of the American Society of Primatologists, Decatur, GA September 12-15, 2014.
- Melin AD**, Crowley BE, Moritz GL, Jacobson AD, Dominy NJ. Calcium and carbon stable isotope ratios as paleodietary indicators. Poster presentation at the 83rd Meeting, American Association of Physical Anthropologists, Calgary, Alberta, Canada. **2014**
- Fedigan LM, Jack K and **Melin AD**. Collaborative long-term data sets and plans for the future: Thirty years of primate research in Costa Rica. Oral presentation at the 83rd Meeting, American Association of Physical Anthropologists, Calgary, Alberta, Canada. **2014**
- Melin AD**, Moritz GL, Wells K, Kawamura S, and Dominy, NJ. Visual pigments, treeshrews, and the origins of primates. Oral presentation at the XIV Congress of the International Primatological Society, Cancun, Mexico. **2012**
- Melin AD**, Mosdossy K, Young HC, and Fedigan, F. Seasonal variation in capuchin insectivory: Implications for the evolution of sensorimotor intelligence. Oral presentation at the 81st Meeting, American Association of Physical Anthropologists, Portland, Oregon. **2012**
- Melin AD**, Fedigan LM, Kline DW, and Kawamura S. Using multidisciplinary techniques to understand the adaptive significance of primate color vision variation. Oral presentation at the 39th Annual Canadian Association of Physical Anthropologists Conference, Montreal, Quebec. **2011**
- Moritz GL, **Melin AD**, Fosbury R, Kawamura S, and Dominy NJ. Why aye-ayes see blue. Poster presentation at the 39th Annual Canadian Association of Physical Anthropologists Conference, Montreal, Quebec. **2011**
- Melin AD**, Kline DW, Hickey C, and Fedigan LM. Effects of color vision on finding food: insights from simulations of monkey vision. Poster presentation at the "Neuroethology: Behavior, Evolution & Neurobiology" Gordon Research Conference, Easton, Massachusetts. **2011**
- Melin AD**, Fedigan LM, and Parr N. Preference and seasonal use of “colourful” fruit: implications for primate color vision. Oral presentation at the Annual Canadian Society for Ecology and Evolution Conference, Banff, Alberta. **2011**
- Melin AD**, Parr N, Fedigan LM, and Kawamura S. Dietary selectivity by white-faced capuchins: how important are colourful fruits? Oral presentation at the XXIII Congress of the International Primatological Society, Kyoto, Japan. **2010**
- Melin AD**, Fedigan LM, Young H, and Kawamura S. Invertebrate foraging by Costa Rican capuchin monkeys: testing predicted sex differences in relation to colour vision variation. Oral presentation at the 33rd Annual Meeting of the American Society of Primatologists, Louisville, Kentucky. **2010**
- Melin AD**, McCabe G, and Fedigan LM. Are colourful fruits more nutritious? Implications for primate colour vision. Oral presentation at the 36th Annual Canadian Association of Physical Anthropologists Conference, Hamilton, Ontario. **2008**
- Melin AD**, Fedigan LM, Hiramatsu C, and Kawamura S. Fig foraging by capuchins: considering polymorphic colour vision. Oral presentation at the XXII Congress of the International Primatological Society, Edinburgh, Scotland. **2008**
- Melin AD**, Fedigan L, Hiramatsu C, and Kawamura S. Effects of colour vision phenotype on insect capture by free-ranging white-faced capuchin monkeys (*Cebus capucinus*) in Santa Rosa National Park, Costa Rica. Oral presentation given at the 29th Annual Meeting of the

American Society of Primatologists, San Antonio, Texas.

- Melin AD**, Fedigan L, Hiramatsu C, and Kawamura S. Diet, foraging and colour vision: evaluating niche divergence among white-faced capuchins. Oral presentation given at the 34th Annual Canadian Association for Physical Anthropology Conference, Peterborough, Ontario. **2006**
- 22 presentations for which I am a co-author (not listed for brevity)* **2003-2014**

Invited Lectures

- New York University, New York New York**, Visiting Researcher in Anthropology **2013**
- Washington University in St. Louis**, Anthropology Colloquium Series **2013**
- University of Toronto, Toronto Canada**, Anthropology Colloquium Series **2012**
- University of California at Davis, Davis USA** Visiting Speaker in Primatology Seminar **2012**
- McGill University, Montreal Canada** Visiting Speaker in Anthropology Seminar **2011**
- University of Tokyo, Kashiwa Japan** Visiting Researcher in Integrated Biosciences Colloquium **2010**
- University of Calgary, Calgary Canada** Behavioral Neuroscience Research Seminar **2006-**
- American School in Japan, Tokyo Japan** Visiting Scientist Presentations (multiple) for elementary, middle and high school students on primate conservation and ecology **2010**

In the News: Popular Media Coverage of Research

- Grens K. [The Rainbow Connection](#): Color vision as we know it resulted from one fortuitous genetic event after another. The Scientist. October 1. **2014**
- Oosthoek S. [Bugs may have made us brainy](#). Science News for Students. July 18. **2014**
- [Insect diet helped early humans build bigger brains: Quest for elusive bugs spurred primate tool use, problem-solving skills](#). Science Daily. July 1. (Also featured on IFL Science) **2014**
- Everding G. Quest for elusive bugs spurred primate tool use, problem-solving skills. Washington University Newsroom. June 25. [Quest for elusive bugs spurred primate tool use, problem-solving skills](#). June 25 **2014**
- NASA and National Geographic FameLab Science Communication Competition. [Colorblindness – disease or adaptation?](#) February 22. **2014**
- Keh D. [A Functional substitution approach for studying the ecology of primate color vision](#). Dug Dug. August 31. **2013**
- Mahony M. [The better to see you with](#). OnEarth. April 30. **2013**
- Quenqua D. [For Early Primates, a Night Filled With Color](#). New York Times. April 2. **2013**
- MacIntosh A. [Extant models of early primates and the evolution of color vision](#). Centre for International Collaboration and Advance Studies in Primatology Podcast. August 8. **2012**
- Barone, J. [The Upside of Color Blindness](#). DISCOVER. April 2. **2007**
- Wayman, E. [An Eye for Camouflage](#). Science NOW. January 9. **2007**

TEACHING EXPERIENCE

Courses Instructed*Washington University in St. Louis*

Anthropology 4202: Anthropological Genetics	Fall 2014
Anthropology 3661: Primate Biology	Fall 2014
Anthropology 4181: Comparative Methods in Physical Anthropology	Spring 2015
Anthropology 4911: Methods in Molecular Anthropology	Fall 2015

University of Calgary

Anthropology 311: Primate Behavior	2011
Anthropology 435: Evolutionary Anthropology	2010-2011
Psychology 505: Special Topics in Color Vision and Color Vision Deficiencies	2009
Anthropology 505: Research Design and Development in Primatology	2007-2008
Anthropology 552: Field Studies in Primatology	2007

Teaching Assistantships*University of Calgary*

Biology 233: Introduction to Organismal Biology of Plants and Animals	2006
Anthropology 203: Introduction to Social Anthropology	2004
Zoology 477: Biology of Vertebrates: Birds and Mammals	2003

Teaching Credentials*University of Calgary*

University Teaching Certificate	2010
Instructional Skills Workshop	2009

MENTORING AND OUTREACH

Post-doctoral Fellows and Laboratory Managers

Joseph Orkin , <i>Washington University</i> . Changing environments, diet, and the gut microbiome of wild capuchin monkeys (Supervisor)	2014-present
Eva Garrett , <i>Washington University</i> . Olfaction as an adaptation to hunting and gathering in the rainforest: testing old hypotheses with new approaches (Supervisor)	2014-present
Mrinalini Watsa , <i>Washington University</i> . Genetic chimeras in callitrichid primates (Supervisor)	2013-present

Graduate

Jeremy Hogan, M.A. <i>University of Calgary</i> . Monkey-flower interactions in a seasonal	2012-present
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dry forest (Co-supervised with Dr. Fedigan, University of Calgary)

Kimberly Valenta, Ph.D. *University of Toronto*. Colour vision and foraging ecology of *Eulemur fulvus*. (Faculty mentor) **2011-2014**

Additionally serving on 5 graduate student committees at Washington University **2014-present**

Undergraduate

Kelly Kries, *Washington University*. Molecular and sensory ecology of sympatric mammals (Supervisor) **2014-2015**

Cassandra Mitchell *Washington University*. Chimerism in callitrichid primates (Co-supervised with Dr. Watsa, Washington University) **2014-2015**

Anna Villanyi, *Washington University*. Observer effects on captive primates at the St. Louis Zoo. (Supervisor) **2014-2015**

Christina Danosi, *Dartmouth College*. Testing the diurnal frugivory hypothesis of primate color vision in a fruit bat (*Pteropus samoensis*) with diurnal proclivities; Anthropology 85 and Anthropology 87 (Supervisor) **2012-2013**

Nalisha Kassam, *University of Calgary*. Effects of natural and simulated human color vision deficiencies on search time and accuracy (Supervisor) **2009-2010**

Michael Lemmon, *University of Calgary*. Establishment and host preference of *Ficus* trees in a tropical dry forest (Supervisor) **2008**

Adrienne Blauel, *University of Calgary*. Predictors of predator alarm calls and responses by capuchin monkeys: evaluating sex, age and color vision status (Supervisor) **2008**

Public Outreach

Cybermentor Program, website-based, Mentor **2003-Current**
A mentoring program, which pairs professional women in science and engineering with young girls, aged 11-18. Involves weekly emails with a mentee about science-related topics as well as her individual interests and career goals. Provides constructive comments, listening and encouragement.

WitsOn (Women in Technology Sharing Online), website-based, Mentor. **2012-2013**
An online program connects undergraduate students pursuing degrees in science, technology, engineering and medicine (STEM) with female mentors from industry and academia who share experience in issues of particular concern to women. The desired outcome is increased representation of women in STEM areas

Women in Science Program (WISP), Dartmouth College, Mentor **2011-2012**
A research internship program, offered to first and second year female students; designed to recruit, retain and engage young women, who are under-represented in science, math and engineering, as active members of the research community.

Operation Minerva, Calgary, Canada, Mentor **2010**
Job-shadowing project to encourage young women (Grade 8) to pursue careers in science, engineering, math and technology as well as to develop an awareness of

their own abilities and potential

Girls Field Hockey, Lord Beaverbrook High School, Calgary, Canada, Head Coach **1999-2003**
 Helping high school girls develop discipline and skill while emphasizing team work and sportsmanship

PROFESSIONAL SERVICE

Departmental Activities

Established the Washington University Genetics Group (WUGG) **2014**
 An informal group (currently 7 members) composed of faculty, post-docs, lab personnel and graduate students from Washington University and The Genome Institute, meets bi-monthly to discuss theory, data analysis and tools in genetics and genomics with a focus on application to current projects.

Symposia Organized, Sessions Chaired and Other Conference Activities

Website construction and maintenance (with J Meachem); 83rd congress of the American Association of Physical Anthropologists, St. Louis, Missouri, USA. **2014-2015**
www.aapa2015.com

Variation & Evolution of Primate Colour Vision Revealed by Cross-Disciplinary Studies (with S Kawamura); XXIII Congress of the International Primatological Society, University of Kyoto, Japan **2010**

Ecology and Conservation of Non-human Primates; 33rd Annual American Society of Primatologists Congress, Louisville, Kentucky, USA **2010**

Neotropical Primate Ecology Workshop: Genes, Behavior and the Senses; Departmental symposium with four invited guest speaker in the area of sensory and behavioral ecology, University of Calgary, Canada **2009**

Editorial and Referee Activities

Guest Editor (with L.J.N. Brent) for the *International Journal of Primatology* Special Issue on The Genetic Basis of Primate Behavior. Feb 2014.

Manuscript reviews (number reviewed)

American Journal of Primatology (1), American Naturalist (1), Animal Behavior (2), Biology Letters (1), Evolutionary Anthropology (1), International Journal of Primatology (5), Journal of Experimental Zoology (1), Journal of Human Evolution (2), PLoS ONE (2), Proceeding of the Royal Society of London B (2)

Funding reviews (number reviewed)

NSF CAREER grant (1), Graduate Women in Science grant (2), Leakey Foundation Fieldwork grant (1), University of Vienna research platform review (1).

Professional Memberships

American Association of Physical Anthropologists (AAPA)
 American Association for the Advancement of Science (AAAS)
 American Association of Anthropological Geneticists (AAAG)
 American Society of Primatologists (ASP)
 Animal Behavior Society (ABS)
 International Primatological Society (IPS)
 Sigma XI

RESEARCH EXPERIENCE

- Co-director of the Santa Rosa Primate Project** **2011-present**
Área de Conservación Guanacaste (ÁCG), Costa Rica
 Long-term behavioral, ecological and molecular research on 4 social groups of habituated capuchin monkeys
- Relationships of Activity Pattern, Diet and Molecular Ecology in Primate Evolution** **2011-2013**
Danum Valley and Mount Kinabalu, Borneo; ÁCG, Costa Rica
 Integration of genetics, ecology and stable isotopes to investigate relationships among color vision, diet and activity pattern in two mammalian communities spanning tropic levels
- Human Functional Substitution Model of Monkey Color Vision** **2008-2010**
Vision and Aging Lab, Department of Psychology, University of Calgary
 Designed a novel way to test the real-world consequences of color vision variation on the foraging efficiencies of primates; Examined the search efficiency of humans experiencing simulated monkey color vision deficiencies using digital images of monkey food items on a touch-sensitive screen
- Primate Color Vision and Foraging Ecology, Principal Investigator** **2004-2011**
Área de Conservación Guanacaste (ÁCG), Costa Rica
 Integration of genetics, ecology and behavioral observation to investigate the effects of color vision on foraging success and food selection in capuchin and spider monkeys.
- Additional Field and Travel Experience** **1999 - 2011**
North and Central America: Belize, Canada, Costa Rica, El Salvador, Honduras, Guatemala, Mexico, Nicaragua, Panama, United States
Africa: Egypt, Kenya, Sudan
Asia & Indonesia: Bali, Borneo, China, Japan, Singapore
Caribbean: Cuba, Dominican Republic
Europe: Austria, Belgium, Germany, England, France, Italy, Scotland, Spain, Wales

LANGUAGES

English: native language

Spanish: near fluent- speak, read, write, and translate