CARRIE C. VEILLEUX – CURRICULUM VITAE

Department of Anthropology
SAC 4.102, Texas State University
2201 Speedway Stop C3200
Austin, TX, 78712

Telephone: (512) 203-9760
Email: carrie.c.veilleux@gmail.com
website: carriecveilleux.com

AREAS OF SPECIALIZATION

sensory and molecular ecology, anthropological genetics, primate evolution

CURRENT APPOINTMENTS

2015-17 Lecturer, Anthropology, Texas State University
2012-17 Postdoctoral Research Affiliate, Anthropology, University of Texas at Austin

PREVIOUS APPOINTMENTS

2015-16 Postdoctoral Fellow, American Association of University Women
2013-14 Postdoctoral Research Associate, Anthropology, Yale University
2013 Lecturer, Anthropology, Texas State University
2010 Associate Instructor, Anthropology, University of Texas at Austin
2007-11 Teaching Assistant, Anthropology, University of Texas at Austin

EDUCATION

Ph.D. Anthropology, University of Texas at Austin, May 2012.
Dissertation: *Effects of light environment on the evolution of primate visual systems*.
Advisor: E. Christopher Kirk

M.A. Anthropology, University of Texas at Austin, 2006.
Thesis: *Visual acuity in a cathemeral lemur (Eulemur macaco flavifrons): implications for strepsirrhine visual ecology*. Advisor: E. Christopher Kirk

B.A. Anthropology, Psychology minor, Barrett Honors College, Arizona State University, 2004.
Advisor: Leanne T. Nash

PUBLICATIONS

Publications in Peer-Reviewed Journals

1. **Veilleux CC**, Scarry CJ, Di Fiore A, Kirk EC, Bolnick DA, Lewis RJ. in press. Group benefit associated with polymorphic trichromacy in a Malagasy primate (*Propithecus verreauxi*). Scientific Reports.

2. Guevara EE, **Veilleux CC**, Saltonstall K, Caccone A, Mundy NI, Bradley BJ. 2016. Potential arms race in the coevolution of primates and angiosperms: brazzein sweet proteins and gorilla taste receptors. American Journal of Physical Anthropology 161: 181-185.

3.**Veilleux CC,** Kirk EC. 2014. Visual acuity in mammals: effects of eye size and ecology. Brain, Behavior and Evolution 83: 43-53.

4.**Veilleux CC**, Jacobs RL, Cummings ME, Louis EE, Bolnick DA. 2014. Opsin genes and visual ecology in a nocturnal folivorous lemur. International Journal of Primatology 35: 88-107.

5.**Veilleux CC,** Louis EE, Bolnick DA. 2013. Nocturnal light environments influence color vision and signatures of selection on the *OPN1SW* opsin gene in nocturnal lemurs. Molecular Biology and Evolution 30: 1420-1437.

6. **Veilleux CC**, Cummings ME. 2012. Nocturnal light environments and species ecology: implications for nocturnal color vision in forests. Journal of Experimental Biology 215: 4085-4096.

7. **Veilleux CC**, Lewis RJ. 2011. Effects of habitat light intensity on mammalian eye shape. Anatomical Record 294: 905-914.

8. **Veilleux CC**, Bolnick DA. 2009. Opsin gene polymorphism predicts trichromacy in a cathemeral lemur. American Journal of Primatology 71: 86-90.

9. **Veilleux CC,** Kirk EC. 2009. Visual acuity in a cathemeral strepsirrhine (*Eulemur macaco flavifrons)*. American Journal of Primatology 71: 342-352.

Chapters in Edited Volumes

10. **Veilleux** CC. in press. Genetics of primate color vision in The International Encyclopedia of Biological Anthropology, Wenda Trevathan (ed). John Wiley and Sons, Inc.

11. **Veilleux CC**. in press. Genetics of primate color vision in the International Encyclopedia of Primatology, Agustin Fuentes (ed). John Wiley and Sons, Inc.

12. **Veilleux CC**. in review. Sensory polymorphisms and dietary adaptation. Invited chapter for Companion to Anthropological Genetics (Wiley-Blackwell), edited by Dennis O'Rourke.

FUNDING AND AWARDS

Research Grants and Fellowships

2015-16 American Association of University Women $30,000
Postdoctoral Fellowship: *Sensory correlates of agricultural transitions: exploring the effect of subsistence strategies on the evolution of human taste and color vision*

2010 University of Texas at Austin $46,000
Harrington Dissertation Fellowship

2009-10 Wenner-Gren Anthropological Foundation $13,441
Dissertation Fieldwork Grant: *Effects of nocturnal light environment on the evolution of nocturnal primate color vision*

2009-10	Leakey Foundation Dissertation Grant: *Evolutionary effects of light environment on the evolution of nocturnal lemur color vision*	$4,080
2009-10	American Philosophical Society Lewis and Clark Grant: *Effects of nocturnal light environment on the evolution of nocturnal primate color vision*	$1,000
2008	American Society of Mammalogists Grant-in-Aid of Research: *Effects of nocturnal light environment on the evolution of nocturnal primate color vision*	$1,500
2008-10	National Science Foundation Dissertation Improvement Grant (#0752692): *Ecological correlates of differential selection on S opsin genes in nocturnal primates*	$13,133
2007	Sigma Xi Grant-in-Aid of Research	$1,000
2006	University of Texas at Austin Liberal Arts Graduate Research Fellowship	$2,000
2005-8	National Science Foundation Graduate Research Fellowship	$120,000
2005-7	University of Texas at Austin David J. Bruton Fellowship	$3,000
2004-5	University of Texas at Austin Pre-emptive Fellowship	$15,000

Awards

2012 Outstanding Student Presentation in Anthropological Genetics, American Association of Physical Anthropologists meeting ($200)
2012 Pollitzer Travel Award, American Assoc. Physical Anthropologists ($500)
2011 Honorable Mention for Student Prize, American Society of Primatologists ($100)
2010 Podium Prize, Texas Association of Biological Anthropologists meeting
2010 Mitchell Award for Excellence in Graduate Research, UT Austin ($2000)
2010 Earnest Albert Hooton Prize, Am Assoc Physical Anthropologists meeting ($750)
2008 Poster Prize, Texas Association of Biological Anthropologists meeting
2004 Department Award for Undergraduate Achievement in Anthropology, Arizona State University

TEACHING EXPERIENCE

Lecturer/Instructor

2016 History of Evolutionary Thought- (ANTH 3307), Texas State University, fall
2016 Human Anatomy- UT-Austin Summer Discovery Pre-College program
2016 Human Variation and Adaptation- (ANTH 3343), Texas State University, spring

2015 Human Variation and Adaptation- graduate (ANTH 5543), Texas State University, fall
2013 Primate Behavior (ANTH 3342), Texas State University, spring
2010 Introduction to Physical Anthropology (ANT 301), UT-Austin, summer

Teaching Assistant/Research Assistant

2011 Intro to Physical Anthropology Self-Paced, UT-Austin, fall
2010 Head TA, Intro to Physical Anthropology (ANT301), UT-Austin, spring
2009 Head TA, Intro to Physical Anthropology (ANT301), UT-Austin, spring
2008 Primate Anatomy (ANT 432L), UT-Austin, fall
2008 Intro to Physical Anthropology (ANT301), UT-Austin, summer
2007 Intro. to Physical Anthropology (ANT301), UT-Austin, spring
2004-5 Research Assistant, Primate Evolution Database Project for Dr. Liza Shapiro

Undergraduate Students Mentored (*continued to graduate school, **earned PhD)

Chelsea Ogan 2016
(Jacob) Raven Cortright 2016
Kelly Chapman 2010-12*
Blake Kincaid 2009-10
Maeve Cavanaugh 2009-10
Jenna Strawbridge 2009-10
Maggie Mitchell 2008-09
Abbas Haidry 2008-09
Rachel Menegaz 2005-06**
Sara Zahendra 2005-06
Katy Klymus 2005**

Graduate Students Mentored

2009-10 Solofo Andrianandrasanarivelo (Master's student, University of Antananarivo, Madagascar)

SCHOLARLY PRESENTATIONS

Published Abstracts of Presentations at Professional Meetings

1. **Veilleux CC**, Garrett EC, Bankoff RJ, Dominy NJ, Perry GH, Melin AD. submitted. Effects of agricultural transitions on the evolution of human sensory systems. American Association of Physical Anthropology.

2. **Veilleux CC,** Garrett EC, Dominy N, Perry GH, Melin AD. 2016. The role of local adaptation in the evolution of human taste. International Primatological Society/American Society of Primatologists joint meeting. Chicago 2016.

3. Garrett EC, **Veilleux CC**, Bankoff RJ, Orkin JD, Dominy NJ, Perry GH, Melin AD. 2016. Subsistence strategy and the evolution of human olfactory receptor genotypes. International Primatological Society/American Society of Primatologists joint meeting. Chicago 2016.

4. Jacobs RL, **Veilleux CC**, Melin AD. 2016. Dichromacy as an adaptation for foraging in red-bellied lemurs (*Eulemur rubriventer*). Am J Phys Anthropol 159 (Suppl 62):183.

5. **Veilleux CC**, Bolnick DA, Di Fiore A, Lewis RJ. 2013. Is there a role for color-sensitive foraging in folivorous sifaka (*Propithecus verreauxi*)? Am J Phys Anthropol 150 (Suppl 56):276.

6. **Veilleux CC**, Louis EE, Bolnick DA. 2012. Genetic evidence of widespread differential selection for color vision in nocturnal lemurs. Am J Phys Anthropol 147 (Suppl 54):292.

7. **Veilleux CC**. 2011. Effects of nocturnal light intensity on calling frequency in dry forest *Phaner* and *Lepilemur*. Am J Primatol 73 (Suppl 1): 43.

8. **Veilleux CC**. 2011. Nocturnal light environments in Madagascar: implications for nocturnal primate color vision. Am J Phys Anthropol 144 (Suppl 52): 299.

9. **Veilleux CC**, Louis EE, Bolnick DA. 2010. Variation in nocturnal lemur color vision: ecological correlates of differential selection. Am J Primatol 72 (Suppl 1): 63.

10. **Veilleux CC**, Louis EE, Bolnick DA. 2010. Differential selection for color vision in two nocturnal folivores. Am J Phys Anthropol 141 (Suppl 50):233.

11. **Veilleux CC**, Lewis RJ. 2009. Effects of habitat light intensity on the evolution of mammalian visual anatomy: implications for primate ecology and evolution. Am J Phys Anthropol 138 (Suppl 48):261.

12. **Veilleux CC**. 2008. The influence of diet and activity pattern on visual acuity: implications for primate evolution. Am J Phys Anthropol 135 (Suppl. 46):213-214.

13. **Veilleux CC**, Kirk EC. 2007. A behavioral test of visual acuity in the cathemeral strepsirrhine *Eulemur macaco flavifrons*. Am J Phys Anthropol 132 (Suppl. 44):237.

14. **Veilleux CC**, Klymus K, Kirk EC. 2006. A behavioral method for measuring visual acuity in non-human primates. Am J Primatol 68 (Suppl. 1):76.

Scholarly Presentations without Published Abstracts

2010 "Nocturnal light environments and S-opsin gene evolution in nocturnal lemurs" poster at International Postgraduate Sensory Ecology Course, Lund University, Sweden

2009 "Habitat preference and nocturnal lemur color vision: implications for primate and human evolution" American Anthropological Association, Philadelphia PA

Invited Presentations

2015 "Sensory adaptations in primate and human evolution: insights from molecular ecology." Invited talk, Anthropology Department, University of Texas at San Antonio. December 2, 2015.

2015 "Ecological influences on visual acuity and color vision in non-human primates and humans." Invited talk for Shoji Kawamura's Laboratory of Evolutionary Anthropology, University of Tokyo. August 18, 2015.

2013 "Seeing the forest for the trees: ecology, vision, and primate evolution." Invited talk, Anthropology Department, Stony Brook University. April 29, 2013.

2013 "Experiencing nocturnality: understanding the visual world of nocturnal lemurs." Texas State University Anthropology Department Speaker Series. February 6, 2013.

2012 "Primate molecular ecology." Guest lecture for Anthropological Genetics (ANT 349D), University of Texas at Austin. November 27, 2012.

2009 "Nocturnal light environments: implications for nocturnal lemur visual systems" invited talk for Stony Brook University Study Abroad Program, Centre ValBio, Ranomafana National Park, Madagascar.

CONFERENCE PANELS ORGANIZED

2011 "Ears, eyes and noses: revisiting the ecology and evolution of primate special senses." Poster symposium co-organized with Eva Garrett and Rachel Jacobs. American Association of Physical Anthropologists Annual Meeting, Minneapolis, MN.

RESEARCH PROJECTS, EXPERIENCE, AND TRAINING

Molecular and Bioinformatics Projects

2016-present *Identifying opsin gene variation in four species of New World monkeys*. In collaboration with Tony Di Fiore (Primate Molecular Ecology and Evolution Lab, UT Austin) and Max Snodderly (UT Austin)

2015-present *Bioinformatics and selection analyses of human sensory genes (taste, olfaction, opsin)*. In collaboration with Amanda Melin (PI, Primate Molecular Ecology Lab, University of Calgary), Eva Garrett (Boston University), PJ Perry (Penn State), Nate Dominy (Dartmouth College)

2013-present *RNA extraction, gene expression, bioinformatics, and evolution of lemur taste receptor genes*. In collaboration with Brenda Bradley (PI, Molecular Anthropology Lab, Yale University, now at George Washington University)

2007-present *Population genetic, phylogenetic, and genotyping analyses of opsin genes in lemurs*. PI, in collaboration with Deborah Bolnick (Molecular Anthropology Lab, UT Austin), Edward Louis (Molecular Genetics Lab, Henry Doorly Zoo), Tony Di Fiore (Primate Molecular Ecology and Evolution Lab, UT Austin)

Field-based Projects

2013-present *Statistical analyses of sifaka feeding behavior, demography, and morphometric data*. In collaboration with Rebecca Lewis (UT Austin), Chris Kirk (UT Austin), Clara Scarry (Miami University), Deborah Bolnick (UT Austin), Tony Di Fiore (UT Austin).

2012-13 *Statistical analyses of spectral reflectance data from* Avahi *foods under different illuminants at Ranomafana National Park, Madagascar*. In collaboration with Rachel Jacobs (George Washington University), Molly Cummings (UT Austin), Deborah Bolnick (UT Austin), Edward Louis (Henry Doorly Zoo).

2009 *Field measurements of light environments and forest ecology*. Kirindy Mitea National Park and Ranomafana National Park, Madagascar. PI, dissertation, in collaboration with Molly Cummings (UT Austin).

Sensory Anatomy and Behavior Projects

2016-present *Optomotor response and behavioral measurement of color discrimination in lemurs*. In collaboration with Addison Kemp (UT Austin PhD student), Raymond Vagell (Hunter College masters student), Andrea Baden (Hunter College), Rachel Jacobs (George Washington University)

2006-13 *Phylogenetically-controlled comparative analyses of ecological effects on mammalian visual morphology and acuity*. In collaboration with Chris Kirk (UT Austin) and Rebecca Lewis (UT Austin)

2005-06 *Behavioral measurement of lemur visual acuity using a forced choice test*. UT Austin Animal Resource Center, in collaboration with Chris Kirk (UT Austin)

2005 *Effects of hormonal manipulation on the attractiveness of male túngara frog* (Physalaemus pustulosus) *mating calls*. In collaboration with Elizabeth Dawson and Mike Ryan (UT Austin)

Other Research Experience and Training

2015 Genome Variant Analysis Course, University of Texas at Austin, Austin, TX
2015 RNA-Seq 1 and RNA-Seq Hands-On Analysis courses, UT Austin, Austin, TX
2013 Duke Bioinformatics Workshop, Durham, NC
2013 Genomics Workshop, Am. Assoc. Anthropological Genetics, San Antonio, TX
2012 Genomics Workshop, Am. Assoc. Anthropological Genetics, San Antonio, TX
2010 International Postgraduate Sensory Ecology Course, Lund University, Sweden
2005-6 Paleontological field assistant, Dalquest Research Site, Texas with Chris Kirk
2003 Internship at Primate Foundation of Arizona - Behavioral study of social contagion in captive chimpanzees

SERVICE

Professional Service

2011-16 Manuscript Reviewer, *American Journal of Physical Anthropology, American Journal of Primatology, Animal Behavior and Cognition, Biological Journal of the Linnean Society, PLOS One, Molecular Ecology, Philosophical Transactions B*
2015-16 Grant Reviewer, the Leakey Foundation

University Service

2008-9 Chair, Liberal Arts Graduate Research Fellowship Committee, UT-Austin: Implemented new online application system, evaluated grant proposals from graduate students, awarded $40,000 grant funds

2007-8 Co-chair, Liberal Arts Graduate Research Fellowship Committee, UT-Austin: Developed new advertising campaign, evaluated grant proposals from graduate students, awarded $50,000 grant funds

Departmental Service

2009 Student Representative, Physical Anthropology Hiring Committee

2008-9 Planning Committee, New Directions in Anthropology Graduate Student Research Conference, Anthropology Graduate Student Association

2008 Coordinator, Informal Physical Anthropology Seminar Series, UT-Austin.

COMMUNITY OUTREACH

2010-13 Organizer, "Leaping Lemurs" interactive activity at ExploreUT, a university-wide "open house" for the public, designed to engage children of all ages in science and primatology

2011 Organizer, "Primate and Mammal Color Vision" interactive activity for K-12 teachers through UT Austin's Hot Science Cool Talks Outreach Series. Designed to help K-12 teachers develop lesson plans on trichromatic color vision in primates.

2006-9 Workshop Leader, Girlstart's Expanding Your Horizons Conference, a one-day conference for elementary and middle school girls to encourage interest in science and technology careers.

PROFESSIONAL SOCIETIES

American Association of Physical Anthropologists, American Association of Anthropological Genetics, American Society of Primatologists, International Primatological Society, Phi Beta Kappa (elected 2004), Sigma Xi (elected 2007), Texas Association of Biological Anthropologists