

## *Curriculum Vitae*

B. Katherine Smith, PhD

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### **Academic Record**

- Ph.D.** 2012 (Anthropology) “Diet, Nutrition, and Health in Captive Western Lowland Gorillas (*Gorilla gorilla gorilla*)”. Purdue University, West Lafayette, IN.  
Training Certificate in Ingestive Behavior
- M.S.** 2008 (Anthropology) “Observing Stress in Captive Western Lowland Gorillas (*Gorilla gorilla gorilla*) Through Behavioral Observations and Non-Invasive Fecal Hormone Analysis”. Purdue University, West Lafayette, IN.
- B.A.** 2006 (Anthropology) University of Texas at San Antonio, San Antonio, TX. Graduated with Honors.

### **Research Interests**

health disparities; diet-related chronic diseases; chronic stress; allostatic load; food choice; dietary adaptations; indigenous hunter-gatherer societies; evolutionary theory; health, wellbeing, and management of captive housed primates; nutritional and evolutionary ecology of nonhuman primates; dietary adaptations; primate behavior and cognition; wildlife ecology

### **Academic Appointments**

- 2015 (Fall)** Assistant Professor, Department of Anthropology and Sociology, The University of Southern Mississippi
- 2013-2015** Post-Doctoral Fellow, Department of Educational Psychology, University of Houston, Houston, TX  
Hwemudua Addictions and Health Disparities Laboratory: Stress and Drug Use Vulnerability in the African American Community
- 2013-Present** Visiting Scholar, Department of Anthropology, Purdue University, West Lafayette, IN  
Nutritional ecology of wild apes and indigenous foragers, Central African Republic; Diet and nutrition of captive chimpanzees, United States and Canada
- 2014-Present** Adjunct Professor, Department of Anthropology, University of Houston at Clear Lake, Houston, TX  
Anthropology 3131 – *Contemporary Cultural Anthropology*  
Anthropology 3631 – *Anthropology of Food*
- 2012** Lab Manager, Department of Anthropology, Purdue University, West Lafayette, IN  
Biological Anthropology Laboratory: Medical Anthropology and Nutritional Ecology
- 2012** Limited Term Lecturer, Department of Anthropology, Purdue University, West Lafayette, IN  
Anthropology 205 (2 sections) – *Human Cultural Diversity*  
Anthropology 205 Honors (1 section) - *Human Cultural Diversity*  
Anthropology 212 (2 sections) - *Culture, Food, and Health*.

### **Teaching and Training Experience**

- 2014**           **Invited Guest Speaker, University of Houston and Houston Zoo, Houston, TX**  
*STEM Teaching Equity Project Faculty Lecture Series*
- 2013**           **Invited Guest Speaker, University of Houston, Houston, TX**  
*Department of Anthropology Forum*
- 2013-Present** **Guest Lecturer, University of Houston at Clear Lake, Houston, TX**  
*Anthropology 3631 – Anthropology of Food*  
*Anthropology 2346 – General Anthropology*
- 2007-Present** **Training undergraduate and graduate students**  
Behavioral Observations of Captive Non-Human Primates  
(Purdue University and Oklahoma City Zoo)  
Analysis of biological markers of health (stress and inflammation)  
(Purdue University and University of Houston)  
Nutritional analysis of plant foods (protein, fat, calories, fiber)  
(Purdue University and Oklahoma City Zoo)
- 2007-2009**   **Teaching Assistant, Purdue University, West Lafayette, IN**  
*Anthropology 204-Human Evolution (Introduction to Biological Anthropology)*
- 2008**           **Teaching Assistant, Purdue University, West Lafayette, IN**  
*Anthropology 100-Introduction to Anthropology (Four-field)*

### **Field and Laboratory Research Experience**

- Present**           Dietary survey of zoo and sanctuary housed chimpanzees  
Purdue University, Lincoln Park Zoo, Chimpanzee SSP
- Present**           Psychosocial monitoring, behavioral observations, biomarker analysis (salivary cortisol, DHEA, CRP, testosterone, and  $\alpha$ -amylase) and biomonitoring in African American communities  
University of Houston
- 2012-Present** Laboratory analysis of wild plant samples for nutrient content in human diets  
Purdue University, August 2012-Present.
- 2012**           Laboratory analysis of hemoglobin, cholesterol and triglycerides in humans  
Purdue University and World Health Organization, August-December 2012.
- 2011-12**       Laboratory analysis of fecal cholesterol, bile acids and fiber digestion in gorillas  
Purdue University, August 2011-March 2012
- 2011**           Laboratory analysis of plant samples for nutrient and condensed tannin content  
Hunter College, August 2011
- 2010**           Behavioral and fecal sampling of western lowland gorillas  
Oklahoma City Zoo, June-December 2010
- 2010**           Online Dietary survey of zoo housed gorillas  
Purdue University and Gorilla SSP
- 2008-2012**   Plasma C-Reactive Protein, Plasma Epstein-Barr Virus and IL-6 analysis of humans  
Purdue University, May 2008-December 2012
- 2008**           Fecal cortisol analysis of western lowland gorillas  
Purdue University, January-April 2008
- 2007**           Behavioral sampling of western lowland gorillas

- San Francisco Zoo, June-August 2007
- 2005-2006** Behavioral sampling of effects of nutritional effects on behavior and dominance in savannah baboons  
Texas Biomedical Research Institute, May 2005-August 2006
- 2005** Behavioral and Nutritional Enrichment  
Texas Biomedical Research Institute, January-May 2005
- 2003-2004** Preserving and cataloging archaeological materials  
Center for Archaeological Research, University of Texas at San Antonio, August 2003-December 2004

### Administrative Service

- 2013** Journal Manuscript Reviewer, *Zoo Biology*

### Awards and Honors

- 2012** Nominated for Outstanding Teaching Award in Anthropology
- 2009** Nominated for Outstanding Teaching Assistant Award in Anthropology
- 2009** Honorable Mention - Sigma Xi Poster Competition  
“Observing Stress in Captive Western Lowland Gorillas (*Gorilla gorilla gorilla*) Through Behavioral Observations”

### Grants and Fellowships

- 2013-2015** NIH/NIDA funded Post-Doctoral Fellow, University of Houston, \$73,200.
- 2010-2012** NIH funded Ingestive Behavior Research Council Fellow, Purdue University, \$40,000.
- 2011** Oklahoma City Zoo Small Grant, \$2,489.
- 2010** Walter Hirsch Dissertation Award, \$1,500.
- 2009** Purdue Research Foundation Fellow, \$18,000.

### Publications

#### *Peer-Reviewed Journal Articles:*

- 2014** **Smith, B.K.**, M.J. Remis, and E.S. Dierenfeld. Nutrition of the captive western lowland gorilla (*Gorilla gorilla gorilla*): A dietary survey. *Zoo Biology*. 33(5):419-425
- 2007** Schlabritz-Loutsevitch, N.E., Dudley, C.J., Gomez, J.J., Nevill, C.H., **Smith, B.K.**, Lenkins, S.L., McDonald, T.J., Bartlett, T.Q., Nathanielsz, P.W., and Nijland, M. Metabolic adjustments to moderate maternal nutrient restriction. *British Journal of Nutrition*. 98(2):276-284

#### *Journal Articles in Progress:*

- In prep** **Smith, B.K.** and M.J. Remis. Impacts of dietary modifications on the behavior of captive western lowland gorillas (*Gorilla gorilla gorilla*).
- In prep** **Smith, B.K.** and M.J. Remis. Impacts of dietary modifications on fiber digestibility in captive western lowland gorillas (*Gorilla gorilla gorilla*).

#### *Other Publications:*

- 2012** **Smith, B.K.** and M.J. Remis. (2012). Diet, behavior and nutrition in captive western lowland gorillas (*Gorilla gorilla gorilla*): implications for chronic disease in apes and humans. *American Journal of Physical Anthropology*. 147 (S54): 29,

- 2009** **Smith, B.K.**, Williams, S.R., and M.J. Remis. (2009). Examining the Role of Captivity in Western Lowland Gorillas (*Gorilla gorilla gorilla*) through Behavioral Observations and Fecal Cortisol Collection. American Journal of Primatology. 71 (Suppl):15, 52
- 2009** **Smith, B.K.**, Remis, M.J. and S.R. Williams. Observing Stress in Captive Western Lowland Gorillas (*Gorilla gorilla gorilla*) Through Behavioral Observations and Non-Invasive Fecal Hormone Analysis. American Journal of Physical Anthropology. 138 (S48):28, 242-243

### **Podium Presentations**

- 2012** **Smith, B.K.** and M.J. Remis. “Diet, behavior and nutrition in captive western lowland gorillas (*Gorilla gorilla gorilla*): Implications for chronic disease in apes and humans.” Presented at the American Association of Physical Anthropologists Annual Meeting, Portland, Oregon, April 11-14
- 2011** **Smith, B.K.** and M.J. Remis. “Wild and Captive Dietary Comparisons” Presented at the Great Lakes Region Gorilla Workshop, Lincoln Park Zoo, Chicago, Illinois, November 2

### **Presented Posters**

- 2014** Cavanagh, L., Campbell, M.T., Ratliff, K.L., **Smith, B.K.**, Obasi, E.M. (2014). The Effects of Alcohol and Cigarette Consumption on Dehydroepiandrosterone (DHEA) in rural African Americans. To be presented at the American Psychological Association Annual Meeting, Washington, DC, August 1-3
- 2011** **Smith, B.K.** and M.J. Remis. “A 2010 Survey of Gorilla Diets: The Role of Fiber and tannins in captive gorillas diets with implications for human evolution and health.” Presented at the American Society of Primatologists Annual Meeting, Austin, Texas, September 16-19
- 2011** **Smith, B.K.** and M.J. Remis. “A 2010 Survey of Gorilla Diets: The Role of Fiber and tannins in captive gorillas diets with implications for human evolution and health.” Presented at the Purdue Interdepartmental Nutritional Program Annual Conference, May 13, 2011
- 2008** **Smith, B.K.**, Remis, M.J. and S.R. Williams “Observing Stress in Captive Western Lowland Gorillas (*Gorilla gorilla gorilla*) Through Behavioral Observations”, Presented at the Midwest Primate Interest Group, South Bend, IN, October 14-15, 2008