# 2015 Publications, Conference Presentations, Theses and Dissertations by FAC Faculty and Students and Research Involving FAC Resources (see also the 2014-2015 document)

## Publications

Bilheux, H.Z., Cekanova, M., Vass, A.A., Nichols, T.L., Bilheux, J.C., Donnell, R.L. and Finochiarro, V., 2015. A novel approach to determine post mortem interval using neutron radiography. *Forensic Science International*, *251*, pp.11-21.

Boldsen, Jesper L., George R. Milner, and Søren K. Boldsen. 2015. Sex estimation from modern American humeri and femora, accounting for sample variance structure. *American Journal of Physical Anthropology* 158(4):745-750.

Cobb, Charles R.,Anthony M. Krusand Dawnie W. Steadman. 2015. Bayesian modeling of the occupation span of the Averbuch site in the Middle Cumberland Drainage, Tennessee. *Southeastern Archaeology* 34(1):46-56.

Cobaugh KL, Schaeffer SM, DeBruyn, JM, 2015, Functional and structural succession of soil microbial communities below decomposing human cadavers. *PLoS ONE*. 10(6): e0130201. DOI: 10.1371/journal.pone.0130201.

Damann, F.E., Williams, D.E. and Layton, A.C., 2015. Potential use of bacterial community succession in decaying human bone for estimating postmortem interval. *Journal of Forensic Sciences*, *60*(4), pp.844-850.

Dudzik, Beatrix, and Natalie R. Langley. 2015. Estimating age from the pubic symphysis: A new component-based system. *Forensic Science International* 257:98-105.

Frank, Emilie M., Amy Z. Mundorff, and Jon M. Davoren. 2015. The effect of common imaging and hot water maceration on DNA recovery from skeletal remains. *Forensic Science International* 257: 189-195.

Godde, Kanya. 2015. Secular trends in cranial morphological traits: a socioeconomic perspective of change and sexual dimorphism in North Americans 1849–1960. *Annals of Human Biology* 42(3): 255-261.

Hauther KA, Cobaugh KL, Jantz LM, Sparer TE, DeBruyn JM. 2015. Estimating time since death from postmortem human gut microbial communities. *Journal of Forensic Sciences*. 60(5):1234-40.

Hefner JT, Pilloud MA, Black CJ, Anderson BE. 2015. Morphoscopic trait expression in “Hispanic” populations*. Journal of Forensic Sciences.* 60(5):1135-9.

Junno, Juho‐Antti, Markus Paananen, Jaro Karppinen, Jaakko Niinimäki, Markku Niskanen, Heli Maijanen, Tiina Väre et al. 2015. Age‐related trends in vertebral dimensions. *Journal of Anatomy* 226, no. 5: 434-439. 6.

Langley Natlie R.2015. The lateral clavicular epiphysis: fusion timing and age estimation. Int J Legal Med 130(2), 511-517. DOI 10.1007/s00414-015-1236-9.

Leshner, Alan I, Buikstra Jane E, Clear Todd R, Holton J. Jerome, Isenschmid Daniel S., Petrosino Joseph F, Piquero Alex R, Spohn Cassia, Steadman Dawnie Wolfe, Stern Hal, Wagner Jarrad, Walsh Kelly A. 2015. National Academies of Sciences, Engineering, and Medicine. *Support for Forensic Science Research: Improving the Scientific Role of the National Institute of Justice*. Committee on Strengthening Forensic Science at the National Institute of Justice. Committee on Law and Justice, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

Meeusen, Rebecca A., Angi M. Christensen, and Joseph T. Hefner. 2015. The use of femoral neck axis length to estimate sex and ancestry. *Journal of Forensic Sciences* 60(5): 1300-1304.

Milner GR, Boldsen JL, Weise S, Lauritsen JM, Freund UH. 2015. Sex-related risks of trauma in medieval to early modern Denmark, and its relationship to change in interpersonal violence over time. *International Journal of Paleopathology* 9:59-68.

Reeves, Nicole. 2015. Beyond biomechanics: Bone strength properties of obese adults. *The FASEB Journal* 29.1 Supplement 866-7.

Slice, Dennis E., and Bridget FB Algee‐Hewitt. 2015. Modeling bone surface morphology: a fully quantitative method for age‐at‐death estimation using the pubic symphysis. *Journal of Forensic Sciences* 60(4): 835-843.

Weiss, Elizabeth. 2015. Can we create ethnically diverse skeletal collection from donated bodies? *Anthropologischer Anzeiger* 72(1): 43-53.

Wescott, Daniel J., and Jessica L. Drew. 2015. Effect of obesity on the reliability of age‐at‐death indicators of the pelvis. *American Journal of Physical Anthropology* 156(4): 595-605.

Wheeler, Rachel L., Aaron D. Hampton, and Natalie R. Langley. 2015. The effects of body mass index and age on cross‐sectional properties of the femoral neck. *Clinical Anatomy* 28(8): 1048-1057.

Wu, Jing, Emam E. Abdel Fatah, and Mohamed R. Mahfouz. 2015. Fully automatic initialization of two-dimensional–three-dimensional medical image registration using hybrid classifier. *Journal of Medical Imaging* 2.2 Published online 2015 Jun 2. doi:  10.1117/1.JMI.2.2.024007.

## Conference Presentations and Workshops (see Publications 2014-2015 for additional conference presentations)

Cobaugh KL, KA Hauther, JM DeBruyn.  Postmortem succession of human gut microbial communities.  Poster presented at the American Society for Microbiology General Meeting, New Orleans, LA, May 30-Jun 2, 2015.

DeBruyn JM, KL Cobaugh, SM Schaeffer. Succession of soil microbial communities below decomposing human cadavers. Paper presented at the American Society for Microbiology General Meeting, New Orleans, LA, May 30-Jun 2, 2015.

Steadman, Dawnie Wolfe, Jennifer DeBruyn and Clayton Nolting. Anthropology, Entomology and Microbiology in Forensic Science. Workshop presented at the Judicial Institute of Maryland, Annapolis, MD. October 30, 2015.

Steadman, Dawnie Wolfe. The Role of Forensic Anthropology in Coroner Cases. Workshops presented at the Kentucky County Coroners Conference, Morehead, Kentucky. August 4, 2015.

## Dissertations and Theses

Andronowski, Janna. evaluating differential nuclear DNA yield rates among human bone tissue types: a synchrotron micro-ct approach. Ph.D. Dissertation, University of Tennessee, 2016.

Aurigemma, Tracy Ann. The height of the pubic tubercle as an indicator of parturition. MA Thesis. Boston University, 2015.

Campanacho, Vanessa. The influence of skeletal size on age-related criteria from the pelvic joints in Portuguese and North American samples. PhD Dissertation, University of Sheffield, 2016.

Cloven, Jasmine M. Validation study of the proposed seventh phase of the Suchey-Brooks age estimation method for the pubic symphysis. MA thesis, Boston University. 2015.

Costello, Amanda Kathryn. An analysis of sexual dimorphism using geometric morphometrics of the femur and tibia: the use of GM in assessing sex of fragmented remains. MA Thesis, Boston University. 2015

Dudzik, Beatrix. Investigating cranial variation in japanese populations using geometric morphometrics. Ph.D. Dissertation, University of Tennessee, 2015.

Emmons, Alexandra L. The preservation and persistence of human dna in soil during cadaver decomposition. MA Thesis, University of Tennessee, 2015.

Forman, Barbara. The greenhouse effect: decomposition rates in human remains wrapped in plastic. MA Thesis, University of Tennessee, 2015.

George, Karen R. The estimation of body mass from human skeletal remains. MA Thesis, Boston University, 2015.

Hailey, Kelsey Jo. A comparative evaluation of auricular surface aging methods using the william m. bass donated skeletal collection. Honors thesis, Department of Anthropology, University of Tennessee, 2015.

Hufnagl, Kevin Benjamin Dominic. Age estimation with decision trees: testing the relevance of 94 aging indicators on the William M. Bass Donated Collection. PhD Dissertation, Department of Anthropology, University of Tennessee, 2015

Jones, Arleigh. Examination of age estimation of the sternal rib ends in the third and fourth left ribs. Honors thesis, Department of Anthropology, University of Tennessee, 2016.

Kearns, Aisling. An evaluation of a metric method for sex estimation using the clavicle, humerus, radius, and ulna. MA thesis. Boston University, 2015.

Kolatorowicz, Adam. Patterns of morphological integration in modern human crania: Evaluating hypotheses of modularity using geometric morphometrics. PhD Dissertation, Ohio State University, 2015.

Mincer, Sarah. Skeletons in the closet: The history and ethics of human skeletal collections in the United States with an example from the Vassar College Collection. BA Thesis, Vassar College, 2015.

Schultz, Nichole Theresa. Trends and patterns in the ossification of thyroid cartilage. Honors Thesis, Department of Anthropology, University of Tennessee, 2015.

Smith, Jacob K. Raccoon scavenging and the taphonomic effects on early human decomposition and PMI estimation. MA Thesis, University of Tennessee, 2015.

Synstelien, Jennifer Ann. Studies in taphonomy: Bone and soft tissue modifications by postmortem scavengers. PhD Dissertation, Department of Anthropology, University of Tennessee, 2015.

Wolff, Brittany M. A review of ‘body farm’ research facilities across America with a focus on policy and the impacts when dealing with decompositional changes in human remains. MA thesis, University of Texas at Arlington, 2015.