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Obituary:

Deborah L. Moore, Ph.D.
(8 October 1964 - 22 March 2016)

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Deborah L. Moore lost her six-year battle with cancer on 22 March 2016, at age 51. With her passing, the primatological community has lost a professional who had, in her all too brief career, contributed in exceptional ways to our understanding of Africa's great apes, while seeking to translate scientific study to effective conservation for these highly threatened primates.

Born in Montreal, Quebec, Canada, Deb pursued undergraduate training in biological anthropology at Georgia State University, completing a comparative paleoanthropological honor's thesis examining hominin skeletal morphology with Frank Williams. It was post her BA degree that she first honed and focused her professional interest on the behavioural ecology of chimpanzees, participating in a multi-year research project at the Yerkes National Primate Research Center in association with Drs. Frans de Waal and Kristin Bonnie. Inspired to pursue behavioural ecology research with chimpanzees in Africa and motivated to effectively merge field-based ecological study with conservation, Deb began pursuit of a Ph.D. at the University of Georgia, working with Carolyn L. Ehardt in the Department of Anthropology's focused doctoral program in Environmental and Ecological Anthropology. Transferring to the University of Texas at San Antonio with Ehardt to become one of the original cohort in UTSA's new Ph.D. program in Ecological Anthropology, Deb began to formulate a dissertation project which would take her to the savanna-woodlands of the Ugalla region of western Tanzania to investigate the population of Endangered *Pan troglodytes schweinfurthii* in this environment, one of the most seasonal, dry, and open of chimpanzee habitats.

The Ugalla chimpanzees, at the easternmost range of this subspecies, are not only an important population for the conservation of the species,

Deborah Moore in Ugalla, Tanzania.

they also represented opportunity to investigate how a population living under significant resource constraints and exhibiting exceptionally large home ranges could differ in their socioecology from the more traditionally studied forest populations. Faced with addressing fundamental questions of population demography and behavioural ecology, such as the stability of male philopatric community structure, in such an unusual and non-habituated population, Deb turned to non-invasive, innovative application of genetic analysis of systematically collected fecal samples. Through demanding field work (during which she first detected the cancer that would ultimately take her life) and genetic analyses in collaboration with Linda Vigilant in the Department of Primatology at Max Planck

Deborah Moore searching for chimpanzees in Ugalla, western Tanzania.

Institute for Evolutionary Anthropology in Leipzig, Germany, Deb's research revealed the efficacy of her innovative techniques and approach in revealing environmentally-stable aspects of socioecology, and contributed valuable data for the Ugalla chimpanzees with direct application to conservation of this important and exceptional population.

Following receipt of her Ph.D. in 2013, Deb began postdoctoral association with the Bonobo Conservation Initiative as a Research Associate and became one of the very first scientists to work with the bonobo population at the Kokolopori Bonobo Reserve in the Democratic Republic of Congo. Excited about this opportunity to again contribute to conservation science for highly threatened primates, and despite the challenges of the field site (echoing what she overcame at Ugalla), she initiated protocols to guide the work, only to again be stricken by cancer. Forced to return home to Canada, Deb exhausted every avenue to combat the recurrence and continue with the research that so highly motivated her as the professional and exceptionally caring person who was admired and cared about by all of her friends, family, and colleagues around the world.

Deb is and will be greatly missed by all who knew her and had the privilege of working with her. To share some of those personal remembrances:

From Gráinne McCabe:

I first met Deborah in the Caribbean lowlands of northwestern Costa Rica in the summer of 2005. At the time, she was finishing up her undergraduate degree at Georgia State University, planning to pursue a PhD in the near future. It was my first time as a teaching assistant on a field course and one of Deb's first experiences studying primates in the wild; an experience that got her hooked.

We didn't meet up again until the fall of 2007 when we bumped into one another in the hallway of Baldwin Hall at University of Georgia. Two brand new PhD students about to embark on a rollercoaster adventure together across several states and continents: from Athens, Georgia to San Antonio, Texas to the forests of Tanzania. The journey would be filled with many highs and lows, great accomplishments and inevitable failures,

and thankfully for me it resulted in an incredible friendship as well.

Deb will be deeply missed by all who knew her. In her honour, we have established the Dr Deborah Moore Memorial Grant for Early Career Primatologists, which will be hosted by the American Society of Primatologists. This grant will be for researchers that have recently completed their PhDs but have not yet acquired full-time employment in academia. If you wish to donate to the fund, please see https://www.crowdrise.com/o/en/campaign/annual-dr-deborah-moore-memorial-grant-for-early-career-primatologists.

From Carolyn Ehardt:

It was a privilege to have been part of Deb's journey from student to professional colleague, and to know her as the motivated, dedicated, joyful person she was throughout all phases of that journey. As Deb's research demonstrated, she had much to contribute to advancing our knowledge of highly threatened primates, including posing seminal questions that only could be addressed through innovative and difficult approaches, free of the risks sometimes attendant to more traditional research strategies. We regret the loss of those certain future contributions to the understanding and conservation of African primates. I also know that a number of colleagues admired and respected how she handled the sometimes unpleasant 'quagmires' that can accompany pursuit of research, especially in a field where competitiveness can overshadow collaborative advancement of knowledge. Always the professional, she placed the science and the long-term welfare of the animals first. For all of these reasons, she will be deeply missed.

A selection of Deborah Moore's publications

Rudicell, R.S., A.K. Piel, F. Stewart, D.L. Moore, G.H. Learn, Y. Li, J. Takehisa, L. Pintea, G.M. Shaw, J. Moore & P.M. Sharp. 2011. High prevalence of simian immunodeficiency virus infection in a community of savanna chimpanzees. *Journal of Virology* 85(19): 9918-9928.

Moore, D.L. 2013. Genetic investigation of an unhabituated, savanna-woodland chimpanzee (*Pan troglodytes schweinfurthii*) population in Ugalla, western Tanzania. The University of Texas at San Antonio.

Moore, D.L. & L. Vigilant. 2014. A population estimate of chimpanzees (*Pan troglodytes schweinfurthii*) in the Ugalla region using standard and spatially explicit genetic capture–recapture methods. *American Journal of Primatology* 76(4): 335-346.

Moore, D.L. & L. Vigilant. 2014. Genetic diversity at the edge: comparative assessment of Y-chromosome and autosomal diversity in eastern chimpanzees (*Pan troglodytes schweinfurthii*) of Ugalla, Tanzania. *Conservation Genetics* 15(3): 495-507.

Moore, D.L., K.E. Langergraber & L. Vigilant. 2015. Genetic analyses suggest male philopatry and territoriality in savanna-woodland chimpanzees (*Pan troglodytes schweinfurthii*) of Ugalla, Tanzania. *International Journal of Primatology* 36(2): 377-397.

Tokuyama, N., D.L. Moore, K.E. Graham, A. Lokasola & T. Furuichi. 2016. Cases of maternal cannibalism in wild bonobos (*Pan paniscus*) from two different field sites, Wamba and Kokolopori, Democratic Republic of the Congo. *Primates* 58(1): 7-12.