

# CURRICULUM VITAE



## Netzin G. Steklis

*“Nenetzin”, shortened to “Netzin”, is an Aztec name in the Nahuatl language (Nene=doll and ~tzin= of royalty, reverential) and is pronounced ‘net-scene’. Her name was given by her father, Dr. Rex E. Gerald, who was a MesoAmerican and Southwestern archaeologist.*

Maiden and publication names: C. Netzin Gerald, Netzin Gerald-Steklis, Netzin Gerald Steklis

Personal information: Born 27 August 1967, in El Paso, TX ; Married with 2 children

Contact information: [nsteklis@arizona.edu](mailto:nsteklis@arizona.edu) or [netzin@wild-minds.org](mailto:netzin@wild-minds.org) (520) 490-0595

## Education

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1971-78	Colegio Casa Montessori (K-5 <sup>th</sup> , skipped 6 <sup>th</sup> )	Juarez, MEXICO
1978-80	Zach White & Lincoln Schools (7 <sup>th</sup> -8 <sup>th</sup> )	El Paso, TX
1980-84	Coronado High School (9 <sup>th</sup> -12 <sup>th</sup> )	El Paso, TX
1984-89	University of Chicago B.A. in Anthropology (Biology concentration)	Chicago, IL
1995	Princeton University M.A. in Ecology & Evolutionary Biology	Princeton, NJ

## Specialty Certification & Continued Education

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1982-84	University of Texas (computer programming and archaeology courses taken during high school)	El Paso, TX
1991	Rutgers University Center for Remote Sensing & Spatial Analysis Environmental Resources (non-matriculating/audit courses)	New Brunswick, NJ
1995	Rutgers University Certificate, ArcView2	New Brunswick, NJ
1996	Environmental Systems Research Institute, Inc ESRI Certificate, ARC/INFO	Philadelphia, PA

1996	Smithsonian Conservation Research Center Conservation Applications of GIS	Front Royal VA
2005-06	University of Arizona Environmental Ethics Logic & Critical Thinking (non-matriculating/audit courses)	Tucson, AZ
2006-07	Princeton University Environmental Studies (non-matriculating/audit courses)	Princeton, NJ
2011-13	University of Arizona PSYCH 596e: Evolution of Aggressive and Violent Behavior ECOL 524: Chance, Purpose, and Progress in Evolution and Religion IA 697a Learner Centered Teaching -towards Certificate in College Teaching Program (non-matriculating credit courses)	Tucson, AZ

## Honors, Awards & Grants

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- 1984 University of Texas Junior Scholar (Archaeology of the Old Socorro Mission)
- 1987 Richter Fellowship Grant (Primate Communication in Auditory and Tactile Modalities)
- 1987 Selected for International Women's Ekiden race, JAPAN (one of 3 US universities)
- 1987 Summer Research Opportunities Grant (Individuality in Howler Monkey Morning Chorus Vocalizations)
- 1988 Richter Fellowship Internship (Baboon Island, Brookfield Zoo)
- 1988 Summer Research Opportunities Grant (Social Maturation of Provisioned and Non-Provisioned Female Baboons)
- 1988 Summer Research Opportunities Program, Annual Conference Selected Speaker
- 1989 National Hispanic Scholarship Fund
- 1990 National Science Foundation, Minority Graduate Fellowship Grant
- 1996 Smithsonian Conservation Research Center, Conservation Technology Support Program Grant (GIS hardware and software for mountain gorilla conservation)
- 2002 Explorers Club, Champions of Wildlife Award (co-award with husband H.D. Steklis)
- 2009 McClelland Inst. for Children, Youth, and Families, The "Fathers, Parenting, and Families" Research Initiative Fund, Univ. of Arizona, \$5,000 (Co-Principal Investigator, Play as Paternal Care in Mountain Gorilla)
- 2011 Student/Faculty Interaction Grant, University of Arizona, Phoenix Zoo field trip for students in "Natural History of our Closest Relatives", \$500 (Instructor)
- 2011 University of Arizona, Confluence Innovation and Collaboration Faculty Grant, *The Koko Project: In Pursuit of a Mind to Mind Connection*, \$25,000 (Co-Investigator).
- 2012 University of Arizona, Online Education Development Grant, University of Arizona, "Natural History of the Living Primates" online course development

## Employment

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- 1985-1989 University of Chicago, Allee Lab of Animal Behavior: Research Assistant to Drs. Jeanne and Stuart Altmann.
- 1994- 2005 Director of Scientific Information Resources, The Dian Fossey Gorilla Fund International (dedicated to wild gorilla conservation, habitat protection and research, see [www.gorillafund.org](http://www.gorillafund.org); Developed databases for 30 years of accumulated research information on mountain gorillas, including demographic data, behavioral data, historic map inventory, GIS, photos, audio/video materials, poaching data, and more; public presentations on findings at scientific meetings, public events, and film documentaries; publication in peer reviewed journals as well as popular press; research on gorilla life history, vocal communication, population viability, spatial use of the habitat and habitat characteristics)
- 2000-2005 Administrative Director, The Ammonius Foundation (managed grants and annual graduate prize programs for research in the field of systematic philosophy)
- 2005 Education Director, The Council for Science & Humanity (developed a plan for a new school in Princeton, NJ that incorporated evidence-based methods and included a strong science and philosophy curriculum)
- 2006-2007 Technology Education Developer, Storming-Robots, LLC of NJ (developed curriculum to enhance logic and critical thinking skills for grades 2-12)
- 2006-2007 Environmental Educator, South Branch Watershed Association of NJ (educated elementary school students about local watershed and water conservation)
- 2008-2013 Program Coordinator, Cienega Watershed Partnership (coordinate conservation and stewardship projects, education, and resourcing initiatives with all partners active in the Cienega Watershed in southeastern Arizona)
- 2007-Present Environmental Education Curriculum Developer and Instructor, Empire Ranch Foundation (developed middle school curriculum “Wild About the Grasslands!”, a BLM “Hands on the Land” summer program, focused on the unique grasslands and ranching heritage of southern Arizona, including ecology, conservation ethics, technology tools for stewardship, and cultural heritage)
- 2008-Present Adjunct Instructor, University of Arizona, Dept. of Anthropology and UA South (Biological Anthropology course “Natural History of our Closest Relatives”)
- 2012-Present Lecturer, University of Arizona, Dept. of Family Studies and Human Development (new course “Men, Fathers and Families: A Biocultural Perspective” co-developed and co-taught with H. Dieter Steklis)

## Research Experience

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**1983 Old Socorro Mission [USA-TX]**

Field assistant on excavation of Spanish mission from the Pueblo Revolt period; under Rex E Gerald, University of Texas at El Paso

**1984 Old China Town [USA-TX]**

Field assistant on excavation of the china town in El Paso during the Santa Fe railway period; under David Batcho, New Mexico State University

**1986 Vocalizations and Spacing in Howler Monkeys [COSTA RICA]**

Collected field data on study of mantled howler monkeys, using playback experiments, testing the function of long-distance vocalizations at a field site on La Pacifica ranch in Guanacaste province of Costa Rica; Under James Whitehead, University of Florida at Gainesville

**1987-1988 Behavioral Development of Juvenile Female Baboons [USA-IL]**

Collected data for comparison of behavioral development of juvenile female baboons in captive (Brookfield Zoo) and wild conditions (Amboseli, Kenya); Under Jeanne Altmann, University of Chicago and Amy Samuels, Brookfield Zoo Conservation Biology.

**1987– 1989 The Ontogeny of Grooming Reciprocity [USA-IL]**

Analyzed grooming data from Amboseli yellow baboons with a focus on sex differences; Under Jeanne Altmann, University of Chicago

**1989-1990 Census of Wild Chimpanzees [ZAIRE & UGANDA]**

Collected census and habitat composition data as part of a study of wild chimpanzees along the Ishasha River, Virunga National Park, Zaire (bordering Uganda); Under H. Dieter Steklis, Rutgers University

**1991-1993 Mountain Gorilla Vocalizations [RWANDA]**

Conducted research on gorilla communication by recording behavior and vocalizations at Karisoke Research Center, Volcanoes National Park, Rwanda; Collaboration with H. Dieter Steklis, Rutgers University

**1991-1992 Object and Spatial Discrimination in White-Necked Ravens [RWANDA]**

Conducted experiments to assess the learning abilities of a habituated pair of wild white-necked ravens; Collaboration with H. Dieter Steklis

**1993-1995 Mountain Gorilla Demography [USA-NJ]**

Developed database for 27 years of demographic data and conducted demographic analysis as partial fulfillment of Masters degree at Princeton University, Dept. of Ecology and Evolutionary Biology; Under advisors, Dan Rubenstein, Andy Dobson and Alison Jolly

**1995-1997 Conservation GIS of Virunga Volcanoes Region [RWANDA & USA-NJ]**

Designed a Geographic Information System to map several attributes of the Virunga Volcano mountains (e.g., land use, vegetation cover, roads, hydrology) using historic maps, satellite imagery, and GPS ground-truthing, in an effort to describe the context of mountain gorillas and conservation efforts; Collaboration with Scott Madry, Rutgers University Center for Remote Sensing and Spatial analysis and H. Dieter Steklis, Rutgers University

**1996-2007 Mountain Gorilla Female Reproductive Success [USA]**

Using the long-term demographic database, investigated the causes of variation in female reproductive success; Collaboration with Martha Robbins, H. Dieter Steklis, et. al.

**1997-2001 Mountain Gorilla Population Viability [USA-NJ]**

Research and data analysis concerning historic and present population status of and threats to the Virunga mountain gorilla population, using demographic database from my Masters thesis research. These demographic data formed part of the multi-national 1997 mountain gorilla Population & Habitat Viability Assessment in which I participated.

**2001-2004 Tourism Impact [RWANDA]**

Evaluated the impact of tourism on mountain gorilla behavior and reproduction as well as tourist perception; Collaboration with H. Dieter Steklis, Katie Fawcett, C. Hodgkinson et. al., Karisoke Research Center, Dian Fossey Gorilla Fund International.

**2001-2004 Biodiversity of the Virunga Volcanoes [RWANDA & USA-AZ]**

Designed a database to inventory the biodiversity of the afro-alpine forest of the Virunga Volcanoes, and use the database to help train park guides in species identification; Collaboration with Katie Fawcett and Serge Nsengimana, Karisoke Research Center, Dian Fossey Gorilla Fund International.

**2001-2004 Gorilla Ranging Behavior Using GIS Technology [RWANDA & USA-AZ]**

Used the GIS database established through prior research as well as historic data from Dian Fossey, and combined ranging information to examine the pattern of habitat use across time and space; Collaboration with Scott Madry, Informatics and University of North Carolina and H. Dieter Steklis, The Dian Fossey Gorilla Fund International

**2003-2004 Mountain Gorilla Fluctuating Asymmetry [RWANDA & USA-NJ, AZ]**

Using photos and demographic database, helped develop facial asymmetry scoring method for mountain gorillas; Collaboration with H. Dieter Steklis

**2009-Present Mountain Gorilla Play and Paternal Investment [RWANDA & USA-AZ]**

Developing an ethogram of play behavior using video of wild mountain gorillas. Testing if play is a form of parental effort. Developing research directions on the role of fathers (and/or other silverbacks) in the lives of their offspring and the role of silverback-immature play; In Collaboration with H. Dieter Steklis.

**2010-Present The Human-Animal Connection: Do human personality dimensions explain attitudes towards animals? [USA-AZ]**

Researching the relationships between the five basic dimensions of human personality, life history strategy and attitudes towards animals, including empathy; Collaboration with H. Dieter Steklis and James E. King

**2010-Present- Theory of Mind and Emotional Awareness in Koko [USA]**

Research to assess the degree of theory of mind in Koko, an enculturated gorilla, using theory of mind and emotional awareness tests adapted from human research; Collaboration with H. Dieter Steklis, Richard Lane and Penny Patterson.

2011-Present **Allocare in the Seri/Comca'ac** [USA-AZ & MEXICO-SON]

Investigating the causes and consequence of variation in allocare, including the relationship between paternal care and allocare, and the resulting health outcomes for children; Collaboration with AJ Figueredo, Dieter Steklis, Tomas Cabeza de Baca, Zac Hohman et al..

2011-Present **Mountain Gorilla Infrasonic Vocalizations** [RWANDA & USA-AZ]

Researching the production, reception, and function of gorilla vocalizations using special equipment to detect and record infrasonic components, at Karisoke Research Center, Volcanoes National Park, Rwanda; Collaboration with H. Dieter Steklis and Britt Singletary.

2011-Present **Kind Kids** [USA-AZ]

Bringing an evolutionary perspective and operationalizing 'kindness' in school children, recording and assessing behavioral interactions; Collaboration with Michelle Walsh, Matthias Mehl, et al., and Ben's Bells.

2012-Present **Mountain Gorilla Personality, Life History & FA** [RWANDA & USA-AZ]

Assessing mountain gorilla personality structure using a standardized personality inventory and long-term behavioral records; Investigation of the relationship between female health, individual personality profile and life history traits. Collaboration with Winnie Eckhardt, H. Dieter Steklis, Alex Weiss, John Sefcek, and Tara Stoinski, The Dian Fossey Gorilla Fund International

## **Publications**

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**Gerald, C. Netzin.** Demography of the Virunga mountain gorilla (*Gorilla gorilla beringei*). M. A. dissertation, Princeton University, Princeton, NJ, 1995

Steklis, H.D. , **Gerald-Steklis, N.** and Madry, S. The mountain gorilla: Conserving an endangered primate in conditions of extreme political instability. Primate Conservation 17:145-151,1997.

**Gerald-Steklis, N.** et al. Population biology and simulation modeling working group report. In: Can the Mountain Gorilla Survive? Population and Habitat Viability Assessment for *Gorilla gorilla beringei*. S. Werikhe, L. Macfie, N. Rosen, and P. Miller (eds.), pp. 71-106. IUCN Conservation Breeding Specialist Group, Apple Valley, MN. 1998.

Steklis, H.D. and **Gerald-Steklis, C.N.** Status of the Virunga Mountain Gorilla Population. In: Mountain Gorillas: Three Decades of Research at Karisoke, M. Robbins, P. Sicotte and K. Stewart, eds. pp. 391-412, Cambridge: Cambridge University Press, 2001.

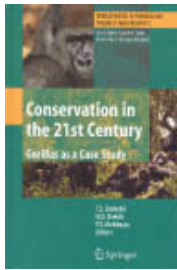
Williamson, E.A. and **Gerald-Steklis, N.** Composition of *Gorilla gorilla beringei* groups monitored by Karisoke Research Center, 2001. African Primates 5(1/2), 48-51, 2001

Bradley, B.J., Robbins, M.M., Williamson, E.A., Steklis, H.D., **Gerald Steklis, N.**, Eckhardt, N., Boesch, C., and Vigilant, L. Mountain gorilla tug-of-war: silverbacks have limited control over reproduction in multi-male groups. Proceedings of the National Academy of Sciences. 102(26):9418-9423, 2005

Robbins, M.M., Robbins, A.M., **Gerald-Steklis, N.**, and Steklis, H. D. Long-term dominance relationships in female mountain gorillas: strength, stability, and determinants of rank. Behaviour 142:779-809, 2005

Robbins, A.M., Robbins, M.M., **Gerald-Steklis, N.** and Steklis, H.D. Age-related patterns of reproductive success among female mountain gorillas. American Journal of Physical Anthropology, 131:511-521, 2006.

Robbins, M.M., Robbins, A.M., **Gerald-Steklis, N.** and Steklis, H. D. Socioecological influences on the reproductive success of female mountain gorillas (*Gorilla beringei beringei*). Behavioral Ecology and Sociobiology. 61(6):9919-931, 2007



**Steklis, N.G.** and Steklis, H.D. The value of long-term research: The mountain gorilla as a case study. In: Stoinski, T., Steklis, H.D. and Mehlman, P.T. (eds.) pp. 150-173, Conservation in the 21<sup>st</sup> Century: Gorillas as a Case Study. New York, NY: Springer, 2008.

Steklis, H.D., Madry, S., **Steklis, N.G.**, Faust, N., and Kayijamahe, E. An integrated Geomatics research program for mountain gorilla behavior and conservation. In: Stoinski, T., Steklis, H.D. and Mehlman, P.T. (eds.), pp. 228-252, Conservation in the 21<sup>st</sup> Century: Gorillas as a Case Study. New York, NY: Springer, 2008.

Steklis, H.D. and **Steklis, N.G.** Minding Gorillas and the Gorilla's Mind. International Society for Neuroethology Newsletter, April 2009, pp. 2-5.

Steklis, H.D. and Steklis, N.G. Graduate Interdisciplinary Programs for Training Students in Human Behavior, Evolution, and Development. Human Ethology Bulletin, 26(1):28- 36, 2011.

Eckardt W, Steklis HD, **Steklis NG**, Fletcher AW, Stoinski TS, Weiss A. Personality Dimensions and Their Behavioral Correlates in Wild Virunga Mountain Gorillas (*Gorilla Beringei Beringei*). Journal of Comparative Psychology. 2014.

Steklis, H.D. and Steklis, N. Men, Fatherhood, and Families: A Biocultural Perspective. 1<sup>st</sup> edition textbook, Cognella Press, 2014

## **Papers Presented at Scientific Meetings and Invited Lectures**

Gerald-Steklis, N. Gorilla GIS: Conservation in the modern age. Invited keynote speaker at Trimble's First International Survey and Mapping Users Conference, 1995

Steklis, H.D., Madry, S., and Gerald, C.N. The mountain gorilla: conserving an endangered primate in conditions of extreme political instability. International Primatological Society Meeting, Madison, WI, August 11-16, 1996

Gerald-Steklis, N. and Steklis, H.D. Mountain gorilla demography and conservation status. American Zoological Association Annual Conference, Albuquerque, NM, September 14-18, 1997

Steklis, H.D., and Gerald-Steklis, C.N. Are mountain gorilla faces deadpan? Max-Planck Institute for Evolutionary Anthropology symposium “Mountain gorillas of Karisoke: Research synthesis and potentials” January 18-19, 1999, Leipzig, Germany.

Gerald-Steklis, C.N. and Steklis, H.D. Variation in reproductive success among female mountain gorillas. Max-Planck Institute for Evolutionary Anthropology symposium “Mountain gorillas of Karisoke: Research synthesis and potentials” January 18-19, 1999, Leipzig, Germany.

Gerald-Steklis, C.N. and Steklis, H.D. Reproductive benefits for female mountain gorillas in multi-male groups. American Society of Primatologists Meeting, August 7-12, 2001, Savannah, GA.

Jacobson, A., Steklis, H.D., Steklis, N., J.LeClair, and Fawcett, K. Exploring the application of human facial fluctuating asymmetry methodology in a great ape. Annual meeting of the Human Behavior and Evolution Society, July 21-25, 2004, Berlin, Germany.

Steklis, H.D. and Gerald-Steklis, N. Mountain gorilla vocalizations: functions, comparative aspects, and new research directions. International Primatological Society Congress, August, 21-28, 2004, Torino, Italy.

Steklis, H.D., Hodgkinson, C., Fawcett, K., Gerald-Steklis, N., Czekala, N., Lilly, A., and Mehlman, P.T. The impact of tourism on mountain gorillas. International Primatological Society Congress, August, 21-28, 2004, Torino, Italy.

Hodgkinson, C., Fawcett, K., Steklis, H. D., Gerald-Steklis, N. and Mehlman, P.T. Tourists’ evaluations of mountain gorilla tourism in Volcanoes National Park, Rwanda. International Primatological Society Congress, August, 21-28, 2004, Torino, Italy

Venturoli, C., Fawcett, K., Steklis, H.D., Gerald-Steklis, N., and Mehlman, P.T. Mountain gorilla female sexual behavior during pregnancy. International Primatological Society Congress, August, 21-28, 2004, Torino, Italy.

Steklis, H.D., Gerald Steklis, N., Madry, S., Faust, N. and Kayijamahe, E. A geomatics approach to mountain gorilla behavior and conservation. Invited keynote address at ESRI International User Conference, Conservation Keynote Session: GIS for Primate Conservation, San Diego, CA, July 25-29, 2005.

Gerald Steklis, Netzin and Steklis, H.D. Evaluating costs and benefits of long-term research for conservation of mountain gorillas. Invited paper presented at the 2008 International Primatological Society conference, Edinburgh, Scotland, August, 2008.

Gerald Steklis, Netzin Primate Conservation Education Network: A proposal. Invited paper presented at the 2008 International Primatological Society pre-conference workshop, Edinburgh, Scotland, August, 2008.

Steklis, H.D. and Gerald Steklis, N. Forty-Five Years of Research at Karisoke: It’s Influence on Primatology. Invited opening lecture for symposium on: Mountain Gorillas (*Gorilla beringei beringei*) Then and Now: Celebrating 45 Years of Research at the Karisoke Research Center (Symposium Organizer: T. S. Stoinski), International Primatological Society Congress, Cancun, Mexico, August 2012.



Eckhardt, W., Steklis, H.D., Steklis, N., Fletcher, A.W., Stoinski, T.S. and Weiss, A. Assessing Gorilla Personality Using the Five Factor Model. International Primatological Society Congress, Cancun, Mexico, August 2012.

## **Publications Submitted or in Preparation**

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- Steklis, N. Historical and scientific context of mountain gorilla discovery and conservation
- Steklis, N. *Dian Fossey: A Required Personality*. Description of Dian Fossey's personality and how it contributed to her conservation success and personal tragedy
- Steklis, N. & Steklis, H. D. *Primate Personalities: Titus*. First of a series of children's books on individual wild primates
- Steklis, H.D. & Steklis, N.G. Reframing Primate Conservation Education
- Steklis, H.D. and Steklis, N.G. *7 Literacies for Thriving in a Sustainable World*. (draft online of an educational curriculum at [www.wild--minds.org](http://www.wild--minds.org))
- Steklis, N., Steklis, H.D., and Singiltery, B. Mountain Gorilla Infrasonic Vocalizations.
- Hawley, C., Steklis, N., Steklis, H.D. Does extrinsic mortality affect baboon mothering styles?

## **Boards & Professional Affiliations**

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- ❑ Affiliate Scientist, The Dian Fossey Gorilla Fund International, [www.gorillafund.org](http://www.gorillafund.org), 2005-Present
- ❑ Scientific Advisory Board, The Gorilla Foundation / Koko.org, 2012-Present
- ❑ Executive Committee, Ironwood Tree Experience [www.ironwoodtreeexperience.org](http://www.ironwoodtreeexperience.org), 2008-Present
- ❑ Adjunct Research Specialist, McClelland Institute for Children, Youth, and Families, Norton School of Family and Consumer Sciences, Univ. of Arizona, 2009-Present.
- ❑ Co-Chair, Human-Animal Interaction Research Initiative (HAIRI) in the McClelland Institute for Children, Youth, and Families, Norton School of Family and Consumer Sciences, Univ. of Arizona, 2014-Present.
- ❑ Affiliate Faculty, Psychology Department/Ethology and Evolutionary Biology Program, University of Arizona, 2009-Present
- ❑ Wild Minds, LLC, co-founder, [www.wild-minds.org](http://www.wild-minds.org) 2005-Present
- ❑ International Primatological Society

## Public Outreach & Teaching

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- Teaching Assistant (1990) Princeton University, Dept. Ecology and Evolutionary Biology (The Evolution of Biological Diversity)
- Volunteer Teacher (2002-2004) Patagonia Community Montessori School (Spanish, Public Speaking, Africa Studies, Scientific Method)
- Home-school teacher for our sons for periods of their K-8 education
- Hundreds of presentations to schools, community organizations, and fundraising events including presentations at the United Nations.
- Featured in several popular magazine articles (e.g., People Magazine) and films (e.g., National Geographic Explorer).
- Environmental Education training and certification with ProjectWET, ProjectWET-Colorado River Watershed, ProjectWILD, GLOBE 'citizen science' data collection.
- Observed "Philosophy for Children" training sessions (Montclair State University, Institute for the Advancement of Philosophy for Children, [www.montclair.edu/iapc](http://www.montclair.edu/iapc))
- K-12 educator (2006-2008) through positions held with South Branch Watershed Association, Storming-Robots, Empire Ranch Foundation and invited presentations.
- Curriculum Developer and Facilitator for "Wild About the Grasslands!", environmental education program based at Las Cienegas National Conservation Area / Empire Ranch
- Adjunct Lecturer, University of Arizona, Dept. of Anthropology-Biological Anthropology and University of Arizona South-Anthropology (teaching Natural History of Closest Living Relatives, face-to-face and online)
- Instructor, University of Arizona, Family Studies & Human Development (teaching Men, Fatherhood, and Families: A Biocultural Perspective, face-to-face and online)
- Co-Instructor, Primate Studies Field School in Rwanda, University of Arizona's Study Abroad Program
- Course developer for face-to-face and online courses at University of Arizona