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## EDUCATION

Ph.D., Botany, Texas A&M University, 2000–2005.

Dissertation on *Lophophora williamsii* [peyote] and *Astrophytum asterias* [endangered star cactus].

Ph.D., Veterinary Toxicology, Texas A&M University, 1976–1981.

Dissertation on the toxicity and metabolism of hymenoxon, the toxic principle of *Hymenoxys odorata* (Asteraceae) [bitterweed].

D.V.M., *magna cum laude*, Texas A&M University, 1973–1976.

A.B., *cum laude*, General Studies [Biology and English], Harvard University, 1966–68, 1969–71. As an undergraduate, studied economic botany under Richard Evans Schultes, the patriarch of ethnobotany of New World medicinal/psychoactive plants.

## PROFESSIONAL EXPERIENCE

Teaching experience as Assistant Professor and Associate Professor, Sul Ross State University, Department of Biology, Geology and Physical Sciences, School of Arts and Sciences, with emphasis on Botany, 2003–present.

Professional experience as Veterinary Toxicologist, designing, supervising and interpreting animal studies performed to support regulatory applications to FDA, WHO and European regulatory agencies, 1981–2002.

## TRAINING AND CERTIFICATION

Professional License in Veterinary Medicine, Texas State Board of Veterinary Examiners, 1976–present.

Board Certification: Diplomate, American Board of Veterinary Toxicology, 1981–present.

## PROFESSIONAL ASSOCIATIONS

American Board of Veterinary Toxicology (Member and Diplomate)  
American Society of Plant Taxonomists (Member)  
American Academy of Veterinary Pharmacology and Therapeutics (Fellow)  
Cactus Conservation Institute, Inc. (President and Chair of Board of Directors)  
Cactus & Succulent Society of America (Active Member, Editor of peer-reviewed journal *Haseltonia*, 2010–2013).  
Center for Big Bend Studies (Active Member)  
Society for Economic Botany (Active Member, participating in recent meetings in the U.K. and South Africa)  
Texas Academy of Science (Vice-Chair of Botany Section in 2014, Chair in 2015, Vice-Chair in 2016)

## HONORS, AWARDS, AND LISTINGS

Outstanding Faculty Member of the Year at SRSU (May 2007)

## PUBLICATIONS

### Books and Book Chapters

**Terry M**, Trout K, Williams B. 2016. When cultivation of a religious sacrament equals manufacturing a controlled substance: Effects of the absence of adequate regulatory structure on the conservation of peyote. In: Daniels JA (Ed.), *Advances in Environmental Science*, Vol. 45, Chapter 3, pp. 71–96. Nova Science Publishers, New York.

Trout K and **Terry M**. 2016. Decline of the genus *Lophophora* in Texas. In: Labate BC and Cavnar C (Eds.), *Peyote: History, Tradition, Politics, and Conservation*, Chapter 1, pp. 1–20. Praeger/ABC-CLIO Publishers, Santa Barbara, CA.

Leathes M and **Terry M**. 1989. *Het Hormonen Schandaal [The Hormone Scandal]*. Roularta, Brussels, 175 pp. [This nonfiction book, which documents various aspects of a European conflict between science and politics that eventually erupted into a global trade war, was written for a lay European audience and was unfortunately published only in Flemish. The manuscript in the original English is available for perusal on request.]

## Refereed Journal Articles

Backs JR, **Terry M**, Ashley MV. 2016. Using genetic analysis to evaluate hybridization as a conservation concern for the threatened species *Quercus hinckleyi* C.H. Mueller (Fagaceae). *International Journal of Plant Science* 177: 122–131.

Goettsch B et al. 2016. Supplementary information [for Goettsch et al. 2015, which appeared in *Nature Plants*, with 74 coauthors including **Terry M**. See Goettsch et al. 2015 below for list of authors and explanation of role of IUCN as organizing body for this research.]

Taylor NC and **Terry M**. 2016. *Euphorbia cryptorubra* (Euphorbiaceae), a new species in *Euphorbia* subgenus *Chamaesyce* section *Anisophyllum* from Texas, U.S.A., and Chihuahua, Mexico. *J. Bot. Res. Inst. Texas* 10: 1–9.

Backs JR, **Terry M**, Klein M, Ashley MV. 2015. Genetic Analysis of a rare isolated species: A tough little West Texas oak, *Quercus hinckleyi* C.H. Mull.

Goettsch B. et al. [74 coauthors including **Terry M**. organized under International Union for the Conservation of Nature (IUCN)]. 2015. High proportion of cactus species threatened with extinction. *Nature Plants* published 5 October 2015, Article Number 15142, DOI: 10.1038/NPLANTS.2015.142. P. 1–7

Klein MT, Kalam M, Trout K, Fowler N, **Terry M**. 2015. Mescaline concentrations in three principal tissues of *Lophophora williamsii* (Cactaceae): Implications for sustainable harvesting practices. *Haseltonia* 20: 34–42.

Taylor NC and **Terry M**. 2015. *Euphorbia abramsiana* (Euphorbiaceae): New to Texas. *Phytoneuron* 2015–24: 1–7.

**Terry M**, Trout K, Williams B, Herrera T, Fowler N. 2014. Limitations to natural production of *Lophophora williamsii* (Cactaceae). III. Effects of repeated harvesting at two-year intervals for six years in a South Texas population. *Journal of the Botanical Research Institute of Texas* 8: 541–550.

Weckesser W and **Terry M**. 2014. An annotated flora of Reed Plateau and adjacent areas, Brewster County, Texas, U.S.A. *Journal of the Botanical Research Institute of Texas* 8: 353–379.

Kalam MA, Klein MT, Hulsey D, Trout K, Daley P, **Terry M**. 2013. A preliminary report of mescaline concentrations in small regrowth crowns vs. mature crowns of *Lophophora williamsii* (Cactaceae): cultural, economic, and conservation implications. *Journal of the Botanical Research Institute of Texas* 7: 435–440.

**Terry M** and Trout K. 2013. Cultivation of peyote: a logical and practical solution to the problem of reduced availability. *Phytologia* 95: 314–320.

**Terry M**, Trout K, Williams B, Herrera T, Fowler N. 2012. Limitations to natural production of *Lophophora williamsii* (Cactaceae). II. Effects of repeated harvesting at two-year intervals in a South Texas population. *Journal of the Botanical Research Institute of Texas* 6: 567–577.

**Terry M**, Pepper AE, Strong AW, Tarin DM, Price DM, Manhart JR. 2012. Genetic structure of a population of the endangered star cactus (*Astrophytum asterias*) in southern Texas. *The Southwestern Naturalist* 57: 182–188.

**Terry M**, Trout K, Williams, B, Herrera T, Fowler N. 2011. Limitations to natural production of *Lophophora williamsii* (Cactaceae) I. Regrowth and survivorship two years post harvest in a South Texas population. *Journal of the Botanical Research Institute of Texas* 5: 661–675.

Hulsey D, Kalam M, Daley P, Fowler N, **Terry M**. 2011. Clinal variation in mescaline concentration among Texas populations of *Lophophora williamsii* (Cactaceae). *Journal of the Botanical Research Institute of Texas* 5(2): 677–683.

**Terry M**. 2011. Regeneration of *Lophophora williamsii* (Cactaceae) following mummification of its crown by natural freezing events, and some observations on multiple stem formation. *Phytologia* 93(3): 330–340.

## RESEARCH AND PROFESSIONAL PRESENTATIONS

Texas Academy of Science, March 2016 Annual Meeting, Junction, TX. I participated in the meeting of the Botany Section, where my graduate student Nathan Taylor made a presentation on his work with *Euphorbia* spp.

Christmas Mountains Research Symposium, May 2016. Annual event at Terlingua Ranch, TX. I gave a slide presentation entitled "Lost in the Labyrinth — Non-Mexican Depictions of the Largely Mexican Geographic Distribution of *Lophophora* spp. (Cactaceae)." This PowerPoint presentation is essentially the outline for a manuscript.

Texas Plant Conservation Conference, November 2016. Based on an abstract submitted, I've been invited by the organizers of this biennial meeting to present a paper on "Familiar Threats and Other Threats to *Lophophora* spp." The venue this year will be the Botanical Research Institute of Texas in Fort Worth.

Texas Academy of Science, March 2015 Annual Meeting, San Antonio, TX. I participated in the meeting of the Botany Section as Chair, where my graduate student Nathan Taylor made a presentation on his work with *Euphorbia* spp.

Christmas Mountains Research Symposium, May 2015 annual event at Terlingua Ranch, TX. My graduate student Robert LeBlanc gave a slide presentation on his analytical method development work.

Wissenschaftliche Gesellschaft [Scientific Society] of Namibia, Windhoek, July 2015. Gave an invited talk on "Cactus Conservation in the Chihuahuan Desert of the United States" to this multidisciplinary group of scientists, who formed their Society before the first university was established in Namibia.

Terry, M. Endangered and vulnerable cacti of Texas. Presented to Texas Association of Cactus and Succulent Societies, Fort Worth Botanical Garden, by M. Terry, October 2015.

Texas Academy of Science, March 2014 Annual Meeting, Galveston, TX. I participated in the meeting of the Botany Section, and Sul Ross graduate student Lauren Hollis presented preliminary results of her analytical work on constituents of West Texas *Pinus* spp.

Terry M and Trout K. El consumo y la falta de producción: Un machete de doble filo en la conservación del peyote. II Congreso Internacional de Medicina Tradicional y Salud Pública: Plantas Sagradas, Cultura y Derechos Humanos. Toluca, Mexico. Presented by M. Terry, April 2014.

Terry M, Trout K, Williams B. Authorized consumption without authorized cultivation: Effects of the absence of regulatory structure in the conservation of *Lophophora williamsii*. 33<sup>rd</sup> IOS [International Organisation for the Study of Succulent Plants] Congress. Phoenix, Arizona. Presented by M. Terry, April 2014.

Christmas Mountains Research Symposium, May 2014, Terlingua Ranch, TX. I gave a slide presentation entitled "Increasing consumption and the absence of production: Scylla and Charybdis in the conservation of *Lophophora williamsii*."

Texas Plant Conservation Conference, 2014, Lady Bird Johnson Wildflower Center, Austin, TX. Though I had not preregistered for the conference and was there primarily to support my graduate student Nathan Taylor, a cancellation occurred which allowed me to present an impromptu update on the cactus conservation research projects going on in my lab.

Texas Academy of Science, 2013 Annual Meeting, Kerrville, TX. I participated in the meeting of the Botany Section, where my graduate student Molly Klein gave a PowerPoint presentation: Mescaline Concentrations in Different Organs of *Lophophora williamsii*, showing order-of-magnitude differences in mescaline concentration among three major tissues of *Lophophora williamsii*, with practical implications for conservation.

Terry M, Steelman K, Guilderson T, Rowe M. Mysterious Collection Objects from the Shumla Caves: Further Data on the Peyote Buttons that Weren't. Christmas Mountains Research Symposium, Terlingua, Texas. Presented by M. Terry, May 2013.

Klein MT, Kalam MA, Fowler N, Terry M. Mescaline Concentrations in Different Organs of *Lophophora williamsii*. Christmas Mountains Research Symposium, Terlingua, Texas. Presented by M.T. Klein, May 2013.

Terry M, Steelman K, Guilderson T, Rowe M. The Shumla Caves "Peyote" Specimens: Composition, Morphology, and Possible Uses. Society for Economic Botany Annual Meeting, Plymouth, UK. Presented by M. Terry, July 2013.

Klein MT, Kalam MA, Fowler N, Daley P, Trout K, Terry M. Mescaline Concentrations in Different Organs of *Lophophora williamsii*: Implications for Cultural Use and Conservation. Society for Economic Botany Annual Meeting, Plymouth, UK. Presented by M.T. Klein, July 2013.

Terry M. Cultivation of peyote in the greenhouse: An idea whose time has come. Presented orally at Annual Meeting of the Intertribal Nursery Council, September 2011, Temecula, California. Presented by M. Terry.

Hulsey D, Abul Kalam M, Daley P, Fowler N, Terry M. 2011. Mescaline concentrations in Chihuahuan Desert vs. Tamualipan Thornscrub populations of *Lophophora williamsii* (peyote). Presented as poster paper by Hulsey and Terry at the Northwest Regional Meeting ("NORM") of the American Chemical Society, June 2011, Portland, Oregon. Abstract published in Proceedings of the meeting.

## CONSULTING AND OTHER PROFESSIONAL PRESENTATIONS

For the first six months of 2016 I participated in an advisory academic mode in the production of Megan Wilde's thesis documentary film entitled "Peyote at a Crossroads." My role was somewhat unusual in that I was never asked to be a member of her Graduate Committee; I was merely asked for advice, which I gladly gave. The majority of the people interviewed by Megan in the film were people whom I either recommended to her as being knowledgeable about peyote in some respect, or confirmed to her that they were suitable interviewees. The project involved a trip to Rio Grande City, where I introduced Megan to the most welcoming of the three licensed peyote distributors, and also to San Juanita Garcia, whose family has been "picking" peyote for several generations. Megan recruited San Juanita, and who did a fabulous impromptu interview with Megan for the film, which looks like it will be a success when Megan gets the expected license early in 2017.

TORCH (Texas-Oklahoma Regional Consortium of Herbaria) Workshop was held at University of Oklahoma Biological Experiment Station on Lake Texoma, May 2012. The purpose of the workshop was to utilize monies remaining from a previous NSF training grant to provide herbarium curators and student herbarium workers with

training in the use of the software program SPECIFY for databasing biological collections. The fact that we and other TORCH institutions participated in this workshop will constitute one more reason why NSF should fund our next proposal for major funding for the digitalization of the collections of TORCH member herbaria. One such NSF grant opportunity is pending as of this writing in October 2016.

## GRANTS RECEIVED

A multi-year grant renewable on an annual basis was received from the Klein Trust, to support Botanical Research in my lab. From 2011 to the present a total of \$75,000 has been received. I am the PI.

USDA 3-year grant. Title: Mentoring Underrepresented Students through Sustainable Agricultural and Biological Research. 9/01/2010–08/31/2014. \$290,000 was received. I was a co-PI.

In response to a collaborative proposal from Texas State University and Sul Ross State University, our group received a Texas Parks and Wildlife Dept. (TPWD) Section 6 grant to reevaluate the genetic relationships of *Echinocereus reichenbachii* var. *albertii* to determine whether this subspecies should remain on the Endangered Species list. This is a 3-year grant. The contract was originally signed in December 2015, and the first year was officially finished on 31 Aug 2016. The grant was actually awarded to Texas State University, and the money to SRSU for the genetic work to determine the phylogenetic relationships among the related taxa is in the form of a subaward — meaning that the money flows from TPWD through Texas State University to Sul Ross State University. In the first year of the grant the net support to Sul Ross amounted to \$8,913. I am a co-PI.

## OTHER AFFILIATIONS AND INVOLVEMENT

Cactus Conservation Institute, Inc. This charitable 501(c)3 organization designs and carries out scientific studies to advance our understanding of how best to achieve effective conservation of vulnerable species of cacti. This pro bono work integrates very well with my academic work at Sul Ross State University. I am President and Chair of the Board of Directors of the organization.