

Curriculum Vitae

Rick L. Hammer

Independent Scholar and Writer
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Education:

Doctor of Philosophy – Botany May 2010
Texas A&M University, College Station, TX
Dissertation: Systematic and Evolutionary Studies in the *Dichantherium acuminatum*
(Poaceae:Paniceae) complex.

Master of Science – Forest Science May 1993
Texas A&M University, College Station, TX
Non-thesis option: Remote Sensing and Geographic Information Systems

Educational and Research Interests:

- Use of Citizen Science in ecological restoration and reconciliation (connecting people to nature) and the use of social media to achieve these goals
- Computational approaches to the synthesis and visualization of species biodiversity data using R and Python programming languages
- Conservation ecology and biology of rare and endangered plants of West Texas
- Lichen identification and ecology
- Virtual ecology education and pedagogy (collaboration with Dr. Ben Wu, Texas A&M University and Dr. Stephanie Knight, Penn State University)

Teaching Interests:

- Undergraduate biology, field systematic botany, ecology, urban ecology and sustainability, environmental science, bioinformatics and computational biology, tropical biology of Costa Rica, and conservation/restoration ecology

Professional Background:

Associate Professor—Department of Biology, Hardin-Simmons University
January 2009 – May 2021

- Teaching assignments including General Biology, General Biology Laboratory, General Ecology, Taxonomy of Flowering Plants, Environmental Ethics, Tropical Ecology of Costa Rica, Computers in Science, and Life in the Universe (Honors Science Discourse)
- Develop and teach new courses as needed

Associate Professor of Restoration Ecology—Au Sable Institute of Environmental Studies, Mancelona, MI. July 2015—2018

- Taught six-week undergraduate course in Restoration Ecology, Summer II 2015, 2018

Graduate Assistant—Teaching – Department of Biology, Texas A&M University

August—December 2008, January 2007—May 2008, August—December 2001

- Taught undergraduate Taxonomy of Flowering Plants laboratories
- Taught graduate Field Systematic Botany laboratories
- Taught undergraduate introductory biology laboratories for biology majors

Graduate Assistant—Research –Laboratory for Functional Genomics, Department of Biology, Texas A&M University

May—July 2008

- Provided bioinformatics consulting and programming support for genomics projects; Linux server administration

Graduate Assistant—Non-Teaching –Laboratory for Functional Genomics, Department of Biology, Texas A&M University

May 2002—December 2006

- Provided bioinformatics consulting and programming support for genomics projects; Linux server administration

Independent Technology Consultant, 2001—2003

- Burlington Northern Santa Fe Railway (Remote client)
- Provided mission critical development and support services for enterprise-level data communications monitoring framework

Software and Technology Consultant, Idea Integration Corp, 1995—2001

- Burlington Northern Santa Fe Railway—onsite client from 1997—2002
- Lockheed Martin Aerospace—onsite client from 1995—1997

Professional Training:

Lichens and Lichen Ecology. Eagle Hill Institute, Steuben, Maine. July 3-8, 2016.

Instructors: David Richardson & Mark Seaward

Crustose Lichen Identification. Eagle Hill Institute, Steuben, Maine. July 10-16, 2016.

Instructor: Irwin Brodo

Presentations and Workshops:

Hammer, Rick L. Elementary and Secondary School Summer Teacher Development Workshops for Abilene Independent School District, June 2021. Emphasis on ecosystem food chains, energy flows, and plant and animal adaptations presented in a place-based learning context at Lake Kirby Nature Park, Abilene, TX

Hammer, Rick L. Elementary and Secondary School Summer Teacher Development Workshops for Abilene Independent School District, June 4th & 6th 2019. Emphasis on ecosystem food chains, energy flows, and plant and animal adaptations presented in a place-based learning context at Lake Kirby Nature Park, Abilene, TX

Skiles A., Brooks, A., Hardin-Simmons University; Kenneth Davis, Oregon Institute of Technology; **Hammer, R.**, Jensen, A. Preliminary colony density estimates and spatial analyses of harvester ants at Rolling N LLP properties, Runnels County, Texas.

Contributed poster presented at the Texas Academy of Science Annual Meeting. Midland College, Midland, TX, March 2018.

Hammer, Rick L. Unplugging the PC: teaching with an iPad in the lecture room and in the field. Oral presentation at the HSU Faculty Development Symposium, January 2015.

Hammer, Rick L. Conservation status of dwarf broomspurge (*Chamaesyce jejuna*) in the rolling plains and Trans Pecos regions of Texas. Oral presentation at the Texas Plant Conservation Conference. University of Texas Ladybird Johnson Wildflower Center, Austin, TX, November 2014.

Hammer, Rick L., Haltiwanger, K., Hennigan, T., Gopffarth, K., Kucera, J., Martinez, V., Michalak, G., Perkins, H., Phillips, S., and Stricklin, B. Population size estimation of dwarf broomspurge (*Chamaesyce jejuna*) in Pecos County, Texas. Contributed poster presented at the Texas Plant Conservation Conference. University of Texas Ladybird Johnson Wildflower Center, Austin, TX, November 2014.

Wu, X. B., Knight, S., **Hammer, R.**, Simmons, M., Xi, W., Webb, A., Ziegler, M., and Schielack, J. Virtual authentic ecological inquiry – transferability and influence of institutional contexts. Contributed poster presented at the Ecological Society of America annual meeting, Sacramento, CA, August 2014.

Hammer, Rick L. Systematic and Evolutionary Studies in the *Dichantherium acuminatum* (Poaceae:Paniceae) complex. Texas A&M University Dissertation Defense Seminar, College Station, TX, May 2010.

Publications—Peer-Reviewed:

Hammer, R.L, Hatch, S.L., Pepper, A.E., and Manhart, J.R. 2012. Concordance between Molecular and Morphological Evidence of Hybridization in the *Dichantherium acuminatum* (Poaceae: Paniceae) Subspecies Complex. *Southwestern Naturalist*, 57, 133-137.

Hammer, Rick L. 2010. Systematic and Evolutionary Studies in the *Dichantherium acuminatum* (Poaceae:Paniceae) complex. Dissertation. Texas A&M University. College Station, TX.

Bailey, M.J., Beremand, P.D., Hammer, R., Reidel, E., Thomas, T.L. and Cassone, V.M. 2004. Transcriptional profiling of circadian patterns of mRNA expression in the chick retina. *Journal of Biological Chemistry*, 279, 52247-52254.

Bailey, M.J., P. D. Beremand, R. Hammer, D. Bell-Pedersen, T. L. Thomas, and V. M. Cassone. 2003. Transcriptional Profiling of the Chick Pineal Gland, a Photoreceptive Circadian Oscillator and Pacemaker. *Molecular Endocrinology* 17, 2084-2095.

Publications—Non-Peer-Reviewed:

Wright, M. and Rick Hammer. Wildflower Phenology Interpretive Sign for Lake Kirby Nature Park, Abilene, TX. 2019

Hammer, Rick L. Legacy and Lore: The Texas Poppy Mallow. Texas Parks & Wildlife Magazine, *in press* January 2018.

Hammer, Rick L. Flora Fact: Rolling Plains Rarity. Texas Parks & Wildlife Magazine, August/September 2015.

Hammer, Rick L. Flora Fact: Blackfoot Daisy: More Than Meets the Eye. Texas Parks & Wildlife Magazine, March 2016.

Research Grants:

Wildlife Diversity Grant—Texas Parks & Wildlife Department. January 2014. Title: Distribution, Population Size, and Reproductive Status of *Chamaesyce jejuna* in Nolan, Mitchell, Terrell, and Pecos counties of Texas. Total award: \$4200.00.

Wildlife Diversity Grant—Texas Parks & Wildlife Department. March 2013. Title: Distribution, Population Size, and Reproductive Status of *Chamaesyce jejuna* in Nolan, Mitchell, and Pecos counties of Texas. Total award: \$2920.00.

Awards:

Provost's Award for Outstanding Service to the Community. Hardin-Simmons University. 2013-2014.

Cullen HSU Faculty Enrichment Grant. 2014. Awarded \$1600.00 for speaking participation, poster presentation, workshop participation and attendance at the 2014 annual Ecological Society of America meeting in Sacramento, CA.

Cullen HSU Faculty Enrichment Grant. 2013. Awarded \$1200.00 for speaking participation and attendance at the 2013 annual Ecological Society of America meeting in Minneapolis, MN.

Outstanding Horticulture Cooperator of the Year. 2012. Awarded by Texas A&M AgriLife Extension Service and the Taylor County Extension Leadership Advisory Board for volunteer teaching (2009 – present) in the Abilene, TX area Master Naturalist and Master Gardener Programs.

Professional Service:

Secretary – Environmental Justice Section of the Ecological Society of America. August 2014—2016

Chair – Go Green Committee, beginning fall semester 2013, Hardin-Simmons University

Member – Academic Advisory Board, Au Sable Institute for Environmental Studies

Instructor – Big Country Master Naturalist & Master Gardener Programs, Texas A&M AgriLife Extension Service and the Taylor County Extension Office, Abilene TX, 2009–present

Conferences and Faculty Development:

Texas Academy of Science Annual Meeting, Midland College, Midland, TX, March 2018.

Wakonse South Conference (Texas A&M) on College Teaching, Burnet, Texas, March 2015.

Texas Plant Conservation Conference, Ladybird Johnson Wildflower Center, Austin, Texas, 2014.

Ecological Society of America Annual Meeting, Sacramento, California, 2014.

Ecological Society of America Annual Meeting, Minneapolis, Minnesota, 2013.

Wakonse South Conference (Texas A&M) on College Teaching, Burnet, Texas, 2011 and 2012.

Texas Plant Conservation Conference, Ladybird Johnson Wildflower Center, Austin, Texas, 2010.

Professional Memberships:

Ecological Society of America

National Association for Interpretation

Community Activities:

President and Chairman, West Texas Science Center, Abilene, TX. 2018—present

President, Friends of Lake Kirby Nature Park, Abilene, TX. 2018—present

Boy Scouts of America, Assistant Scoutmaster, Troop 206, Abilene, TX, 2015—present

Boy Scouts of America, Camp Director for Ecology/Nature Merit Badges, Camp

Tonkawa, Abilene, Texas, Summer 2013, 2014 and 2015

Boy Scouts of America, Cub Scout Den Leader, Pack 271, Abilene, Texas, 2010—2015