SHAWN ELIZABETH KROSNICK
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CURRENT POSITION AND ADDRESS

Associate Professor of Biology
Director of the Paul Hollister Herbarium (HTTU)
Department of Biology
Tennessee Technological University
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EDUCATION

Ph.D. The Ohio State University, Columbus, OH, June 2006. Major Field: Plant Systematics. Dissertation Title: Phylogenetic relationships and patterns of morphological evolution in the Old World species of *Passiflora* (subgenus *Decaloba:* supersection *Disemma* and subgenus *Tetrapathea*).

B.S. with Honors in Research. Cornell University, Ithaca, NY, May 2000. Major: General Plant Science. Honors Thesis: Phylogenetic relationships in *Neptunia* (Fabaceae: Mimosoideae).

RESEARCH EXPERIENCE

Postdoctoral Research Scientist (2007-2009) and Research Associate (2009-2013) Rancho Santa Ana Botanic Garden. Salary and research funded as part of a five year collaborative NSF Revisionary Systematics Grant (DEB 0717151; Krosnick co-PI) for *Passiflora* subgenus *Decaloba.* The goal of this research was to produce a comprehensive, well-supported phylogenetic framework for subgenus *Decaloba.* Detailed morphological, developmental, and anatomical data were used to identify synapomorphies that distinguish clades within the subgenus. In addition, the project involves sequencing three chloroplast and three nuclear loci. A monograph of subgenus *Decaloba* is being completed in collaboration with co-PIs Lucinda McDade (RSABG), P. Jorgensen and J. MacDougal (MOBOT), and K. Porter-Utley (Bridgewater State University).

Katherine Esau Postdoctoral Fellow, University of California, Davis. August 2006-December 2007. Mentors: Daniel Potter and Charles Gasser. This funded research project sought to examine homology among diverse the nectary structures in the genus *Passiflora.* The study incorporated phylogenetic, anatomical, developmental, and gene expression data using an evolutionary developmental approach.

PUBLICATIONS

Thacker, J. H., Krosnick, S. E., Mattingly, H. T., Call, G. P., and S. C. Maynord. *In Review.* Ecological correlates of reproductive output in a Tennessee population of Short's Bladderpod, *Physaria globosa* (Brassicaceae). *Southeastern Naturalist*.

Ma, X., Yan, Li, Krosnick, S., Zhu, R., Shi, J., and Shen, J., 2019. *Passiflora menghaiensis*, a new species of Passifloraceae from Yunnan, China. *Taiwania, International Journal of Biodiversity.* 64 (2): 97-102.

Thacker, J. H., S. E. Krosnick, S. J. Maynord, G. P. Call, and J. S. Perkin. 2019. Pollination biology and reproductive phenology of the federally endangered endemic *Physaria globosa* (Brassicaceae) in Tennessee. *Journal of the Torrey Botanical Society.* 146 (1):27-40.

MacDougal, J. M., J. Ochoa, and S. E. Krosnick. 2018. *Passiflora intricata*, an apetalous new species from the Dominican Republic in Supersection Auriculatae (Passifloraceae). *Phytotaxa* 367: 291–296.

Krosnick. S. E., J. Baker, and K. Moore. 2018. The Pet Plant Project: Treating Plant Blindness by Making Plants Personal. *The American Biology Teacher*. 80 (5): 339–345.

Krosnick, S. E., J. S. Perkin, T. S. Schroeder, L. G. Campbell, E. B. Jackson, S. C. Maynord, C. G. Waters, and J. S. Mitchell. 2017. New insights into floral morph variation in *Passiflora incarnata* L. (Passifloraceae) in Tennessee, U.S.A. *Flora* 236-237: 115–125.

Krosnick, S. E. 2016. Tennessee Flora Committee. 2015. Guide to the Vascular Plants of Tennessee. *Castanea*. 81 (2):159–160. [Book review]

Krosnick, S. E., T.S. Schroeder, M. Miles, and S. King. 2015. Ornithophilous floral visitation in the Australian endemic *Passiflora herbertiana* Ker Gawl. (Passifloraceae). *Journal of Pollination Ecology* 16 (9): 58–63.

Krosnick, S. E., K. E. Porter-Utley, J. M. MacDougal, P. M. Jorgensen, and L. A. McDade. 2013. New insights into the evolution of *Passiflora* subgenus *Decaloba* (Passifloraceae): phylogenetic relationships and morphological synapomorphies. *Systematic Botany* 38 (3): 692–713.

Krosnick, S. E., X. Yu. and Y. Deng. 2013. The rediscovery of *Passiflora kwangtungensis* Merr. (subgenus *Decaloba* supersection *Disemma*): a critically endangered Chinese endemic. *Phytokeys* 23: 55–74.

Krosnick, S. E. and K. A. Dockter. 2012. The Southern Arkansas University Biodiversity Collections. *Journal of the Arkansas Academy of Science*. 66: 188–189.

Krosnick, S. E. 2009. Notes on the typification of *Passiflora xishuangbannaensis* Krosnick. *Passiflora* 19: 6–7,13.

Krosnick, S. E., A. J. Ford, and J. V. Freudenstein. 2009. Taxonomic revision of *Hollrungia* and *Tetrapathea* (Passifloraceae), resulting in an additional subgenus and a new species of *Passiflora*. *Systematic Botany* 34: 110-125.

Wang, Y. Z., S. E. Krosnick, P. M. Jørgensen, and D. Hearn. 2007. Passifloraceae. In: Wu, Z. Y., Raven, P. H. & Hong, D. Y. (eds.), *Flora of China,* Vol. 13. Science Press, Beijing and Missouri Botanical Garden Press, St. Louis.

Krosnick, S. E., E. M. Harris, and J. V. Freudenstein. 2006. Patterns of anomalous floral development in the Asian *Passiflora* (subgenus *Decaloba:* supersection *Disemma*). *American Journal of Botany* 93: 620–636.

Krosnick, S. E. 2005. *Passiflora xishuangbannaensis*: a new Chinese endemic. *Novon* 15: 160–163.

Krosnick, S. E. and J. V. Freudenstein. 2005. Monophyly and floral character homology of Old World *Passiflora* (subgenus *Decaloba*: supersection *Disemma*). *Systematic Botany* 30: 139–152.

Hughes, C. E., C. D. Bailey, S. Krosnick, and M. A. Luckow. 2003. Relationships among genera of the informal *Dichrostachys* and *Lucaena* groups (Mimosoideae) inferred from nuclear ribosomal ITS sequences. In: Klitgaard, B., and Bruneau, A. (eds.), *Advances in Legume Systematics*, vol. 10. The Royal Botanic Gardens Press, Kew.

GRANT FUNDING

$5,000.00 URECA! Team Grant for Tennessee Tech University. Exploring genetic regulation of extrafloral nectaries in Passionflowers using in situ hybridization. (S. Krosnick, W. Wilborn, M. Mangrum, L. Cordell).

$4,500.00 Governor's School for Emerging Technologies at Tennessee Tech, June 2017. Q-PCR validation of candidate genes involved in extrafloral nectary development in Passifloraceae (S. Krosnick).

$8,544.00 TTU Technology Access Fees (TAF), 2017. Funding to purchase herbarium digitization setup for HTTU herbarium (S. Krosnick).

$2,205.00 TTU Technology Access Fees (TAF), 2017. Funding to obtain new virtual desktop units (VDIs) for the HTTU herbarium (S. Krosnick).

$6,000.00, Tennessee Tech Edge/QEP Curriculum Grant, 2017. Design and installation of the Dept. of Biology Native Plant Garden (S. Krosnick).

$5,700.00 Governor's School for Emerging Technologies at Tennessee Tech, June 2016. Exploring the roles of candidate genes involved in extrafloral nectary development in Passifloraceae (S. Krosnick and D. Walker).

$2,500.00, Toomey Foundation award to HTTU Herbarium for purchase of camera equipment (S. Krosnick).

$6,572.00, National Science Foundation. Advancing Digitization of Biodiversity Collections: to HTTU. Proposal submitted by J. Shaw (UTC), Dwayne Estes (APSU), and A. Morris (MTSU). 2015-2018. S. Krosnick, senior personnel, along with curators at five other TN institutions. Subaward to TTU begins March 2017.

$5,000.00, Tennessee Tech University URECA Team Grant. 2015-2016. Phylogeographic relationships among the Austral-Pacific *Passiflora* (subgenus *Decaloba*, supersection *Disemma*, section *Disemma*) (S. Krosnick).

$10,000.00, U.S. Fish and Wildlife Service, 2015-2017. Analysis of self-compatibility, germination, shade tolerance, and plasticity of the endangered plant *Physaria globosa* (Brassicaceae) (S. Krosnick and J. Thacker).

$1,000.00, Tennessee Department of Environment and Conservation. 2015-2016. Pilot floristic inventory of high quality restoration target wetlands in Tennessee (pilot project in collaboration with Dwayne Estes, Austin Peay State University and S. Krosnick).

$10,000.00, Tennessee Tech University Faculty Research Committee Grant, 2014-2015. Examining the evolution of nectaries in *Passiflora* (Passifloraceae) using next generation sequencing techniques (S. Krosnick).

$4,987.00, Tennessee Tech University Quality Enhancement Plan, 2014. Restoration of the HTTU Herbarium at Tennessee Tech (S. Krosnick).

$3,997.10, Southern Arkansas University Faculty Research Grant, 2013-2014. Rediscovering the Southern Arkansas University Biodiversity Collections: Rich Holdings in Southwest Arkansas (S. Krosnick).

$2,343.60, Southern Arkansas University Teaching with Technology Grant, 2011-2012. Improving student performance in Botany through the use of digital microscopes (S. Krosnick).

$3,000.00 Southern Arkansas University Faculty Research Grant, 2010-2011. Species diversification and character evolution in *Passiflora* subgenus *Decaloba* (Passifloraceae) (S. Krosnick).

$7,500.00, National Science Foundation, Collaborative Research: Revisionary Systematics, 2011. Supplemental Funding, Research Experience for Undergraduates (S. Krosnick and L. McDade, at Southern Arkansas University).

$7,500.00, National Science Foundation, Collaborative Research: Revisionary Systematics, 2009. Supplemental Funding, Research Experience for Undergraduates. (S. Krosnick and L. McDade at Rancho Santa Ana Botanic Garden).

$594,931.00, National Science Foundation, Collaborative Research: Revisionary Systematics, 2007-2014. Untangling the passionflower vines: phylogeny, species diversification, and character evolution in *Passiflora* subgenus *Decaloba* (Passifloraceae). (S. Krosnick and L. McDade at Rancho Santa Ana Botanic Garden); $284,543.00 (Peter Jorgensen, MO); $159,254.00 (J. MacDougal, Harris-Stowe State University); $188,482.00 (K. Porter-Utley, Keene State College).

Grant Funding (*continued*)

$11,924.00, National Science Foundation, Doctoral Dissertation Improvement Grant, 2004-2006. Systematics and Character Evolution of *Passiflora* supersection *Disemma* (Passifloraceae) (S. Krosnick and J. Freudenstein).

$5,560.00 National Science Foundation East Asia Program Collaborative Research Fellowship, 2003-2004 (S. Krosnick).

$5,500.00, World Wildlife Fund and Garden Club of America Tropical Botany Award, 2003-2004. (S. Krosnick).

$1,996.45, The Ohio State University Alumni Grants for Graduate Research and Scholarship, 2002-2004. (S. Krosnick).

$1,800.00, The Ohio State University Office of International Affairs, Graduate Student International Dissertation Research Travel Grant, 2002-2003. (S. Krosnick).

$1,500.00, The Ohio State University Office of International Affairs, Graduate Student International Dissertation Research Travel Grant, 2001-2002. (S. Krosnick).

$1,500.00, The Ohio State University Janice Carson Beatley Fund, Graduate Student Field Work Grant, 2003-2004. (S. Krosnick).

$1,500.00, The Ohio State University Janice Carson Beatley Fund, Graduate Student Field Work Grant, 2002-2003. (S. Krosnick).

$1,000.00, Society for Integrative and Comparative Biology Grant in Aid of Research, 2003-2004. (S. Krosnick).

$810.00, American Society of Plant Taxonomists Graduate Research Award, 2003-2004. (S. Krosnick).

$750.00, The Ohio State University Council of Graduate Students Ray Travel Award, 2005. (S. Krosnick).

$500.00, Botanical Society of America Karling Graduate Student Award, 2003-2004. (S. Krosnick).

$500.00, The Ohio State University Critical Difference for Women Grant, 2003-2004. (S. Krosnick).

$300.00, The Ohio State University Sigma Xi Grant in Aid of Research, 2001-2002. (S. Krosnick).

$200.00, General Plant Science Grant for Honors Research, Cornell University, 1999-2000. (S. Krosnick).

AWARDS AND FELLOWSHIPS

Southern Arkansas University, Department of Biology Lowell A. Logan Professorship, 2012-2013.

University of California, Davis, Katherine Esau Plant Science Postdoctoral Fellowship, 2006-2008.

The Ohio State University Mary S. Muelhaupt Presidential Fellowship, 2005-2006.

The Ohio State University College of Biological Sciences Herta Camerer Gross Summer Fellowship for Graduate Research, 2004.

The Ohio State University Department of Evolution, Ecology and Organismal Biology Graduate Student Teaching Award 2004.

Cornell University Ethel S. Willits Plant Science Fellowship, 1996-2000.

Cornell University Howard Hughes Fellowship for Summer Research, 1999.

INVITED LECTURES

"New insights into the reproductive biology in *Passiflora incarnata*" 2017. Obed Watershed Community Association, Crossville, TN.

"Conservation issues affecting the Southeast Asian species of *Passiflora.*" 2014. Putnam County Master Gardeners, Cookeville, TN.

"Tracing the history of laminar nectaries in *Passiflora.*" 2014. University of Southern Mississippi, Hattiesburg, MS.

"The evolution of nectaries in *Passiflora*: insights and implications." 2012. Kenyon College, Kenyon, OH.

"The use of molecular techniques in reconstructing family histories." 2010. Southwest Arkansas Genealogical Society, Magnolia, AR.

"A nectary by any other name… *CRABS CLAW* yields new insights into the evolution of sugar-secreting structures in *Passiflora.*" 2008. Department of Biology, California State University, Long Beach, CA.

"Examining the evolution of nectaries: insights from the Passionvines. 2008. Department of Biology, San Jose State University, San Jose, CA.

"Unraveling the evolution of floral and extrafloral nectaries in *Passiflora.*" 2007. Department of Ecology and Evolutionary Biology, University of Kansas, Lawrence, KS.

"Testing morphological homology with a candidate gene in a non-model organism: a case study from the Passionflowers." 2006. Department of Plant Sciences, UC Davis, CA.

Invited Lectures (*continued*)

"What is a nectary? Examining character evolution in *Passiflora* with a candidate gene approach." 2006. Department of Biological Sciences, Sam Houston State University, Huntsville, TX.

"A morphological challenge: insights into the evolutionary history of the Old World *Passiflora*." 2006. Rancho Santa Anna Botanic Garden, Claremont, CA.

"Evolutionary relationships among the Old World species of *Passiflora.*" 2006. Davis Botanical Society, University of California, Davis, CA.

"Floral evolution in the Old World *Passiflora:* dioecy, dèdoublement, and other anomalies." 2006. Department of Biological Sciences, California State University, Sacramento, CA.

"Systematics and conservation: an example from the Old World *Passiflora*." 2005. Cincinnati Wildflower Conservation Society, Cincinnati, OH.

"Phylogenetic relationships in Old World *Passiflora*: floral evolution and developmental patterns." Friday, 2005. Department of Molecular, Cellular and Developmental Biology, Yale University, New Haven, CT.

"Passionvines in the Old World: highlights from the field." 2005. The Ohio State University, Columbus.

"Phylogenetic relationships in *Passiflora* supersection *Disemma.*" 2003. Institute of Biodiversity, Fudan University, Shanghai, China.

"Searching for the elusive Asian passionflower: travels in Vietnam and China." May 9, 2002. The Ohio State University, Columbus, OH.

PAPERS PRESENTED AT SCIENTIFIC MEETINGS (*indicates Krosnick was presenting author)

*Krosnick, S., L. Campbell, and J. Thacker. Preliminary assessment of self-compatibility and effects of geitnogamous pollination in *Physaria globosa* (Desvaux) O'Kane & Al-Shehbaz (Brassicaceae). Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. Rochester, Minnesota. 21-25 July.

Thacker, J. H. and S. E. Krosnick. 2016. Analysis of reproductive biology and shade tolerance of the endangered plant *Physaria globosa* (Brassicaceae). Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. Savannah, Georgia. 30 July-3 August.

*Krosnick, S. E., and T. Cooper. 2016. Preliminary studies of reproductive biology in *Passiflora incarnata* L. (Passifloraceae) in Middle Tennessee. Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. Savannah, Georgia. 30 July-3 August.

Sanz-Sancho, E. and S. E. Krosnick. 2016. Reconstructing the evolutionary history of the native Austral-Pacific species of *Passiflora* using anchored hybrid enrichment. Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. Savannah, Georgia. 30 July-3 August.

Thacker, J. H., and S. E. Krosnick. 2016. Pollination and phenology analysis of the endangered endemic, *Physaria globosa* (Brassicaceae). 126th Annual Meeting of the Tennessee Academy of Science. Clarksville, TN. 19

November 2016.

*Krosnick, S. E. 2016. New insights into the reproductive biology of *Passiflora incarnata* L. (Passifloraceae) in Middle Tennessee. 126th Annual Meeting of the Tennessee Academy of Science. Clarksville, TN. 19 November 2016.

*Hearn, D. and S. E. Krosnick. 2015. "Comparative transcriptomics of extrafloral nectaries: a search for homology." Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. Edmonton, Alberta. 26-30 July.

*Krosnick, S. E. 2014. "Taxonomic revision of the *Passiflora bilobata* species complex (*Passiflora* subgenus *Decaloba*)." Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. Boise, ID. 27-31 July.

*Krosnick, S. E. 2013. "Ornithophilous pollination syndromes and the evolution of self-compatibility in Australian *Passiflora."* Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. New Orleans, LA. 27-31 July.

Long Aragon, N. and S. E. Krosnick. 2013. "The structural evolution of butterfly egg mimicry within the Passionflowers (*Passiflora* L.)." Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. New Orleans, LA. 27-31 July.

*Krosnick, S. E., Potter, D. and C. Gasser. 2011. "*Passiflora* as a model system for studying nectary diversification: insights and implications." Symposium 150: Diversity, Ecology and Evolution of Extrafloral Nectaries. XVIII International Botanical Congress, Melbourne, Australia. 23-30 July.

Papers Presented at Scientific Meetings (*continued*)

Porter-Utley, K, Krosnick, S., McDade, L., Jolles, D., Jørgensen, P., MacDougal, J. 2011. "Untangling the passionflower vines: insights on the phylogeny of *Passiflora* subg. *Decaloba* based upon cytGS, ITS, ncpGS, *ndh*F, and *trn*L-F sequences. Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. St. Louis, MO. 9-13 July.

*Krosnick, S. E. 2011. "*Passiflora* as a model system for studying nectary evolution." 72nd Annual meeting of the Association of Southeastern Biologists. Huntsville, AL. 13-16 April.

*Krosnick, S. E. 2010. "What is a nectary?" 94th Annual meeting of Arkansas Academy of Science, Little Rock, AR. 9-10 April.

Narula, N. and S. E. Krosnick. 2010. "The Evolution of *CRC* in *Passiflora*." Southern Regional Honors Conference, Greenville, SC. 25-27 March.

Narula, N. and S. E. Krosnick. 2010. "The *CRABS CLAW* gene tree: A phylogenetic analysis of the Eudicots." 94th Annual meeting of Arkansas Academy of Science, Little Rock, AR. 9-10 April.

Krosnick, S. E., Porter-Utley, K. E., and L. McDade. 2009. "Untangling the passionflower vines: preliminary insights on the phylogeny of *Passiflora* subg. *Decaloba* based upon ncpGS, *ndh*F, *trn*L-F, and ITS sequences." Annual Meetings of the Botanical Society of America and Mycological Society of America. Snowbird, UT. 25-29 July.

*Krosnick, S. E., Potter, D. and C. Gasser. 2008. "*CRABS CLAW* as a tool for homology assessment in *Passiflora* nectaries." Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. Vancouver, BC, Canada. 26-31 July.

*Krosnick, S. E., Kiel, C. A., and L. M. McDade. 2008. "Sweet rewards: A survey of nectary diversity in Passifloraceae, Malesherbiaceae, and Turneraceae." Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. Vancouver, BC, Canada. 26-31 July.

*Krosnick, S. E., J. V. Freudenstein, and D. Potter. 2007. "Phylogenetic relationships, rates of speciation, and biogeographical patterns in the Old World *Passiflora* (subgenus *Decaloba*: supersection *Disemma*)." The Botanical Society of America and American Society of Plant Biologists Joint Congress. Chicago, Illinois. 7-11 July.

*Krosnick, S. E., D. Potter, and C. Gasser. 2007. "What is a nectary? First insights into homology assessment in *Passiflora* using *CRABS CLAW."* The Botanical Society of America and American Society of Plant Biologists Joint Congress. Chicago, Illinois. 7-11 July.

*Krosnick, S. E., and J. V. Freudenstein. 2006. "Resolving the phylogenetic position of *Hollrungia* and *Tetrapathea:* the end of two monotypic genera in the Passifloraceae." The American Society of Plant Taxonomists Meeting. Chico, California, 30 July-3 August.

*Krosnick, S. E., E. M. Harris, and J. V. Freudenstein. 2006. "Patterns of anomalous floral development in the Asian *Passiflora* (subgenus *Decaloba:* supersection *Disemma*)." The Botanical Society of America Meeting.

Chico, California, 30 July-3 August.
*Krosnick, S. E., M. A. Alford, J. V. Freudenstein, S. Vanderplank, and D. J. Hearn. 2005. "Phylogeny and evolution of the Passiflorineae." XVII International Botanical Congress. Vienna, Austria, 17-22 July.
*Krosnick, S. E. and J. V. Freudenstein. 2004. "Monophyly and floral character homology of the Old World *Passiflora.*" The American Society of Plant Taxonomists Meeting. Salt Lake City, Utah, 1-4 August.
*Krosnick, S. E. and J. V. Freudenstein. 2002. "Phylogenetic relationships in *Passiflora* supersection *Disemma.*" The American Society of Plant Taxonomists Meeting, Madison, Wisconsin, 4-7 August.
*Krosnick, S. E. and R. Dirig. 1998. "The Cornell University Bryophyte Collections." The New York State Natural History Conference, Albany, New York, 14-17 October.

POSTERS PRESENTED AT PROFESSIONAL MEETINGS (*indicates Krosnick was presenting author).
Haw, H. and S. Krosnick. 2018. Examination of functional reproductive differences among floral morphs in *Passiflora incarnata* L. (Passifloraceae). Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. Rochester, Minnesota. 21-25 July.
Saunders, M. and S. Krosnick. 2018. Reproductive characteristics of *Physaria globosa* (Desvaux) O'Kane & Al-Shehbaz (Brassicaceae) as measured in an ex-situ cultivated population in Putnam County, TN. Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. Rochester, Minnesota. 21-25 July.

Posters Presented at Scientific Meetings (*continued*)
*Cooper, T. and S. Krosnick. 2016. Preliminary examination of extrafloral nectariferous structures in *Passiflora incarnata* L. (Passifloraceae). Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. Savannah, Georgia. 30 July-3 August.
Kington, S. and S. Krosnick. 2016. Flora of Window Cliffs State Natural Area. Annual Meetings of the Botanical Society of America and American Society of Plant Systematists. Savannah, Georgia. 30 July-3 August.
Sanz Sancho, E. and S. E. Krosnick, 2015. New insights into the evolution of the Austral-Pacific *Passiflora* (Passifloraceae: supersection *Disemma*, section *Disemma*). Annual Meetings of the Botanical Society of America and American Society of Plant Taxonomists. Edmonton, Alberta. 26-30 July.
Perdue, J. and S. Krosnick, 2014. Taxonomic revision of the *Passiflora bilobata* species complex (subgenus *Decaloba*: supersection *Xerogona*). Annual meetings of the Tennessee Academy of Science. Morristown, TN. 21 November.
Dunham, K., Harman, A., Patel, B., Stephenson, K., and S. Krosnick. 2015. New occurrence data for state and globally listed plant species in Tennessee's Cumberland Plateau. Annual Meetings of the Association of Southeastern Biologists. Chattanooga, TN. 1-4 April.
Thacker, J., Cullen, D., and S. Krosnick. 2015. Optimization of germination techniques and notes on seedling development in the Federally listed endangered plant species *Physaria globosa* (Brassicaceae). Annual Meetings of the Tennessee Academy of Science. 20 November.
Phillips, T., and S. Krosnick. 2015. New occurrence data for state and globally listed plant species in Tennessee's Blue Ridge Mountains, Ridge-and-Valley, and Sequatchie Valley ecoregions. Annual Meetings of the Tennessee Academy of Science. 20 November.
Cooper, T., Tate, T. and S. Krosnick. 2015. Preliminary studies on reproductive biology in *Passiflora incarnata* L. (Passifloraceae) in Middle Tennessee. Annual Meetings of the Tennessee Academy of Science. 20 November.
Miles, M. M. and S. E. Krosnick, 2011. Bird pollination syndromes in the Australian *Passiflora* (Subgenus *Decaloba*: Supersection *Disemma*). XVIII International Botanical Congress, Melbourne, Australia. 23-30 July.
Tyack, N. B. and S. E. Krosnick, 2009. Optimization of micropropagation techniques for *ex-situ* conservation of the phylogenetically significant species *Passiflora lancetillensis.* Annual Meetings of the Botanical Society of America and Mycological Society of America Joint Meetings. Snowbird, UT. 25-29 July.
*Krosnick, S. and J. Freudenstein. 2003. Molecular and morphological patterns in *Passiflora* supersection *Disemma* (Passifloraceae). The American Society of Plant Taxonomists Meeting, Mobile, Alabama, 28-31 July.
*Krosnick, S. and R. Dirig. 1999. Rich shades of green: the Cornell University Bryophyte Collections. Sixteenth International Botanical Congress St. Louis, Missouri, 1-7 August.

TEACHING EXPERIENCE

Assistant Professor of Biology, Tennessee Tech University, Fall 2013 to present.
Courses taught: General Botany 2110 lecture and laboratory coordination, Plant Ecology 4330 lecture and laboratory, Field Botany 3240 lecture and laboratory, and Plant-Animal Interactions 4330 lecture and laboratory.

Assistant Professor of Biology, Southern Arkansas University, Fall 2009 to Summer 2013.
Courses taught: Botany 2083/2081 lecture and laboratory; Evolution 3763/3761 lecture and recitation, Genetics 3033/3031 lecture and laboratory, Molecular Biology 4501/4512 lecture and laboratory, Introduction to Evolution (Honors) 4692, Introductory Biology 1011/1013 (non-majors); Undergraduate Independent Research 4891/4991. Responsibilities include all laboratory preparations (design of labs and weekly setup/breakdown).

Instructor, Special Topics in Phylogenetics, "Homology and the Evolution of Plant Development," Botany 412, RSABG/Claremont Graduate University, Spring 2009. Co-taught with Lucinda McDade at Rancho Santa Ana Botanic Garden, this graduate seminar addresses traditional and modern approaches to homology assessment with regard to morphological, developmental, anatomical, molecular, and genetic data. Special focus on the importance of primary homology statements with respect to inferences about evolution of key features (shoot apex, leaves, flowers, plant modularity, etc.) made from phylogenetic data.

Visiting Assistant Professor, Chemistry 28i, Interdisciplinary Laboratory, Harvey Mudd College, Fall 2008. Co-teach the molecular biology portion of the lab course, including the completion of restriction digests, gel electrophoresis, and plasmid mapping.

Guest Lecturer, Plant Developmental Genetics, BIO 167, Harvey Mudd College, Spring 2008. Presented lectures on *in situ* hybridization techniques (FISH and immunocytochemical) as well as an overview of primary research on the developmental regulation of *CRC* in *Passiflora* nectaries.

Teaching Experience (*continued*)

Instructor, "A Botanical Journey across the UC Davis Campus," FRS 002, UC Davis, Fall 2007. Co-taught with Daniel Potter in the Department of Plant Sciences, provides freshman with an introduction to the study of botany through hands-on experiences. Designed and lead all laboratories and field trips, supervised student projects and graded in collaboration with Dr. Potter.

Guest Lecturer, **Plant Biology 200A, Genetics and Evolution, UC Davis, Fall 2006.** Presented lecture material on the history of botanical nomenclature and current issues associated with its use. This course is part of the core curriculum for all incoming graduate students in the Plant Biology Graduate Group at UC Davis.

Instructor, Local Flora 210, The Ohio State University, Summer 2002, Fall 2004. This course served as a prerequisite for the graduate level plant taxonomy course, and was required for undergraduate majors in natural resources, ecology and evolution. Designed and presented lecture and laboratory material, student term projects, and lead weekly field trips.

Teaching Assistant, The Ohio State University. Served as teaching assistant for the following courses: Introductory Biology 101 (Summer 2001, 2002, 2003); Introductory Biology 113, Genetics and Development (Fall 2002, 2003); Introductory Biology 114, Evolution and Ecology (Fall 2000); Local Flora, EEOB 210 (Spring 2001, 2002); Organismal Diversity, EEOB 405.02 (Fall 2001); Plant Biology, PLBIO 102 (Winter 2000); Plant Taxonomy, EEOB 672 (Spring 2004).

COURSE DEVELOPMENT (Syllabi available upon request)

Fall 2016, 2018 Plant-Animal Interactions (TTU BIOL 4993)
3 credits with lab (5 contact hours/week), 20 lectures/4 literature discussion sections/12 labs. Designed for upper level undergraduates in Biology or WFS that have had introductory ecology. Lectures cover plant and animal diversity, fossil evidence of plant-animal interactions, herbivory, granivory, pollination, and ant-plant interactions. The laboratory provides experience in pollination biology, ant-plant interactions, experimental design, and analysis of data.

Spring/Fall 2014 Botany (TTU BIOL 2110)
4 credits with lab (3 contact hours/week), 36 lectures/11 labs. Designed for lower level biology and agriculture majors, the course covers fundamentals including the properties of life, plant anatomy, morphology, reproduction, plant systematics and evolution, physiology, economic botany, and ethnobotany. The lab supports the lecture with activities directly relating to lectures covered each week.

Spring 2014 Field Botany (TTU BIOL 3240)
3 credits with lab (6 contact hours per week), 24 lectures/24 labs. Designed for upper level undergraduates in Biology or WFS that have taken introductory botany. Lectures cover 80 common plant families found in TN,

phylogenetic relationships among these families, and field characters for their identification. The lab focuses on the use of dichotomous keys and on-sight field identification.

Fall 2014 Plant Ecology (TTU BIOL 4330)

3 credits with lab (5 contact hours/week), 12 lectures/12 literature discussion sections/12 labs. Designed for upper level undergraduates in Biology or WFS that have had introductory ecology. Lectures span current issues in plant ecology as well as topics including plant growth, reproduction, population biology, and conservation. The laboratory provides hands-on experience in field techniques used in plant ecology and approaches to experimental design.

Spring 2011 Molecular Biology (SAU BIOL 4502/4512)

4 credits with lab (6 contact hours/week), 30 lectures/13 labs. Designed for upper level undergrad biology and chemistry majors, the lecture course covered topics such as DNA structure and replication, transcription, translation, epigenetics, developmental genetics, and transgenic organisms. Lab activities include DNA and protein electrophoresis, PCR, restriction digests, and DNA sequencing, with full lab reports required upon completion of each lab module.

Fall 2010 Introduction to Evolution (Honors) (SAU BIOL 4692)

2 credits (2 contact hours/week), 15 lectures/15 recitation sections. Designed as an introductory course for biology majors, the course covered topics spanning the origins of life, diversification, natural selection, mutation, genetic drift, species concepts, phylogenetic reconstruction, and human evolution. Recitation sections included short essay writing exercises followed by discussion.

Fall 2009 Genetics (SAU BIOL 3033/3031)

4 credits with lab (7 contact hours/week), 40 lectures/13 labs. Designed for upper level undergrad biology majors, lecture topics include mitosis, meiosis, Mendelian and non-Mendelian inheritance, linkage, and an introduction to DNA replication, transcription and translation. Multi-week lab activities include: two *Drosophila* laboratories (dihybrid crosses and sex-linkage experiments) with full lab reports, and preparation of karyotypes through the culture of student blood samples. Weekly lab activities enforce topics discussed in lecture (meiosis, linkage, translation, etc.).

UNDERGRADUATE RESEARCH ADVISING

Tennessee Technological University:

Justin Perdue, Devyn Mitchell, Jessup Peterson, Marleen Yosef, Fiorenza Levantesi, Elizabeth Miller, Silas Maynord, Madisen Saunders, William Willborn: Phylogenetic relationships within *Passiflora* subgenus *Decaloba.*

Hannah Haw, Chris Waters, Bleu Jackson, Silas Maynord, Cory Blackwelder: reproductive biology in *Passiflora incarnata.*

William Willborn, Mikayla Mangrum, Lillian Cordell: qPCR and gene expression in extra floral nectaries of *Passiflora.*

Southern Arkansas University Honors College:

Candice Canady: research on marine aquarium management and conservation/Dallas World Aquarium internship supervision.

Kate Dockter: Distribution of *Arundinaria* in Columbia County, AR.

Nitish Narula, Xi Wu, Samson King, Subir Shakya, and Tyler Chafin: *Passiflora* CRC evolution, DNA sequencing of *Passiflora* subgenus *Decaloba.*

Southern Arkansas University:

Nichole Long-Aragon: Anatomical and morphological evolution of butterfly egg mimicry in *Passiflora.*

Rancho Santa Ana Botanic Garden:

Nicholas Tyack (Pomona College): Tissue culture methods for endangered *Passiflora* species, sequencing of *Passiflora* subgenus *Decaloba.*

Cornelia Clark, Thuy Li (Pomona College): DNA sequencing of *Passiflora* subgenus *Decaloba.*

GRADUATE RESEARCH ADVISING

Graduate Committee Chair:

Masters students: James Thacker, completed May 2018; Sharon Kington, began January 2015; Silas Maynord, began August 2017.

Masters Committee: TTU: Andrea Engle, 2014 to 2017; Samuel Day 2018-present; Ryan Hanscomb, 2018-

present; Towson University: Elizabeth Leo 2018 to present.

Ph.D. Committee: Kenneth Pierce, 2018 to present.

UNIVERSITY SERVICE

TTU:

Biology Department Search Committees

- Academic Support Associate, 2015
- Laboratory Coordinator, 2014
- Biology Instructor, 2014
- Chair of Biology, 2013

Standing Committees

- Planning and Review committee, 2013-present
- Equipment and Technology committee, 2014-present (chair, 2015-2019)
- Seminar committee, 2014-present

University Committees

- TTU Sustainable Campus Committee, 2017-present.

Undergraduate Extracurricular Service:

- Faculty advisor to the TTU Botany Club, 2017-present.

SAU:

- Search Committee, Instructor of Chemistry, 2011.
- Honors College Committee, 2009-present.
- Commencement Committee, 2009-present.
- Graduate School Advisory Committee, 2011-present.
- Biology Department Curriculum Committee, 2011-present.
- Local organizational committee for the Arkansas Academy of Science Annual Meetings, 2011-present.
- Organizational committee for the Mid-South Undergraduate Research Conference, 2011-present.
- Advisor to the SAU Biology Club, 2009-present.
- Honors College Mentor, 2009-present.

OSU:

- Search committee member for herbarium curator and program coordinator, Department of Evolution, Ecology and Organismal Biology, 2004-2005.
- Departmental representative to the Council of Graduate Students, OSU, 2004-2005.
- Member of the Curriculum Committee, Department of Evolution, Ecology, and Organismal Biology, OSU, 2002-2003.
- Member of the Diversity Committee, Department of Evolution, Ecology, and Organismal Biology, OSU, 2001-2002.

PROFESSIONAL SERVICE

American Society of Plant Taxonomists

- Honors and Awards Committee; Chair, Honors and Awards Sub-committee, 2018-2019.
- Council Member at Large, 2016-2019.
- Publicity Committee, 2012-2016 (Chair, 2014-2015, *ex officio* 2016).
- Chair of Malpighiales session at ASPT annual meetings 2007, 2013, 2014.
- Volunteer at membership booth, 2006, 2008, 2013, 2014, 2015.
- Judge for Cooley Award and Graduate Research Award, 2015, 2018.

Association of Southeastern Biologists

- Student Research Awards Committee, 2014-2016, chair 2016.

Botanical Society of America

- Graduate Student Research Awards Committee, 2015-2018.

Southern Appalachian Botanical Society

- Council member, 2017-2019.
- Systematics Subject Editor for *Castanea*, 2014-2017.

Sigma Delta Epsilon, Graduate Women in Science (GWIS)

- Founder and president of The Ohio State University Chapter, 2001-2005.

Reviewer of proposals

- The National Science Foundation
- Graduate Women in Science
- ASPT Graduate Student Award
- Botanical Society of America
- Association of Southeastern Biologists

Reviewer of publications for: *Annals of Botany, American Biology Teacher, Brittonia, Castanea, Evolution and Development, American Journal of Botany, Systematic Botany, Journal of the Botanical Research Institute of Texas (Sida, Contributions to Botany), Southeastern Naturalist, Taiwania,* and *Willdenowia.*

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Society of Plant Taxonomists
Botanical Society of America
Tennessee Academy of Science
Association of Southeastern Biologists
Society of Herbarium Curators
Southern Appalachian Botanical Society

OTHER SOCIETY MEMBERSHIPS

Passiflora Society International
Tennessee Native Plant Society

OTHER PROFESSIONAL SKILLS

Fieldwork

1998	South Africa: Fabaceae
2001	China (Yunnan Province), Vietnam: Passifloraceae
2002	China (Guangdong, Yunnan Provinces): Passifloraceae
2003	China (Yunnan, Guangxi Provinces), Thailand: Passifloraceae, Moraceae
	Australia, Papua New Guinea, India (West Bengal, Assam, and Tamil Nadu): Passifloraceae
2009	Mexico (Yucatán, Veracruz): Passifloraceae
2010	Dominican Republic: Passifloraceae, Sapotaceae
2011	Australia (Queensland, New South Wales, Victoria): Passifloraceae

Languages Spanish (reading and speaking)

REFERENCES

Dr. John Freudenstein, Professor and Chair, Dept. of Evolution, Ecology and Organismal Biology, Museum of Biological Diversity, 1315 Kinnear Rd., Columbus, OH, 43212, 614-688-0363, *freudenstein.1@osu.edu.*

Dr. Lucinda McDade, Director of Research, Rancho Santa Ana Botanic Garden and Claremont Graduate University, 1500 North College Avenue, Claremont, CA, 91711, 909-625-8767 ext. 234, *lucinda.mcdade@cgu.edu.*

Dr. Kristen Porter-Utley, Dean, Bartlett College of Science and Mathematics, Bridgewater State University, Mohler-Faria Science and Mathematics Center, 24 Park Avenue, Bridgewater, MA, 02325, 508-531-2418, *k1porterutley@bridgew.edu.*

Dr. Chelsea Specht, Barbara McClintock Professor in Plant Biology, School for Integrative Plant Sciences, Section of Plant Biology and the L.H. Bailey Hortorium, 502 Mann Library, Cornell University, Ithaca, NY, 14853-4301, 607-255-9293, *cdspecht@cornell.edu.*