

## **VITA**

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## **EDUCATION**

2002	Ph.D. University of Missouri - Columbia. Plant Science
1998	M. S. University of Missouri - Columbia. Plant Science
1995	B.S. <i>Summa Cum Laude</i> . University of Arkansas - Fayetteville. Horticulture. Minor: Business

## **PROFESSIONAL EXPERIENCE**

2021 - present	Professor, Texas Tech University (TTU)
2015 - 2021	Associate Professor, Texas Tech University (TTU)
2009 - 2015	Assistant Professor, Texas Tech University (TTU)
2004 - 2008	Extension and Research Assistant Professor, UF North Florida Research and Education Center (NFREC)
2002 - 2004	Postdoctoral Research Associate, Iowa State University (ISU)

## **LICENSES AND CERTIFICATIONS: None**

## **INTERNATIONAL EXPERIENCE**

2021- present	<b>Member</b> , Strategic Planning for TTU-CR. Research Committee.
2013 - present	<b>Co-PI</b> in discovery, description, and ecology of a new plant species from US and Mexico. ( <i>Greenwoodiella</i> , a new genus of Spiranthinae (Orchidaceae) from North- and Central America and the Greater Antilles, with description of a new species from the Chihuahuan Desert.)
2014 - present	<b>Lead PI</b> for NSF DEB project 'Collaborative research: Testing a microbial-association-distribution hypothesis to explain spatial distributions and species co-existence in communities of epiphytic plants.' Project location - Central America. Project also includes international collaboration and training of international postdoctoral associates (from Finland, Denmark, and India).
2015 - present	<b>Lead PI</b> for a DoD project 'Sensitive plant ecology and conservation.' Project locations include Mexico.

- 2016 - present    **Co-PI** for an orchid mycorrhizae project with Department of Plant Biochemistry and Biotechnology, Central Botanical Gardens National Academy of Science, Belarus.
- 2017 - 2020    **Co-Supervisor** for a Ph.D dissertation ‘Isolation and identification of endophytic fungi from selected orchid species and their role in plant growth and biological activity.’ Central Department of Botany, Tribhuvan University, Nepal.
- 2016    **Mentor and Faculty Supervisor** for a team of Texas Tech University students who won first place in a national Tibetan Innovation Challenge competition to assist Tibetan refugee entrepreneurs in Nepal and India. July - August 2016. Sponsored by the Office of the President, Texas Tech University.
- 2016    **Host for a Visiting Scholar** from China (Dr. Shaoxia Guo) from Qingdao Agricultural University, Qingdao City, Shandong Province, P.R. China
- 2013 - 2015    **Lead PI** for NFWF project 'Assessment of extinction risk for orchids' in direct collaboration with International Union for Conservation of Nature Species Survival Commission (IUCN SSC) personnel in the United Kingdom.
- 2013 - 2019    **Lead PI** for DoI project 'Temporal and spatial relationships between geography, management, environmental variables, and obligate mycorrhizal dependency in Western Prairie Fringed Orchid (*Platanthera praeclara* Sheviak & Bowles)' in direct collaboration with Environment Canada.
- 2007 - Present    **Vice-Chair**, IUCN SSC Orchid Specialist Group North American Region.
- 2014    Bartlett M<sup>\*1</sup>, **J Sharma**, and H Rankou<sup>2</sup>. *The IUCN Red List of Threatened Species* 2014: e.T13254117A13254142. <https://dx.doi.org/10.2305/IUCN.UK.2014-1.RLTS.T13254117A13254142.en>.  
<sup>1</sup> Student at Harvard University, Cambridge, Massachusetts; currently a Ph.D. student at University of California, Los Angeles.  
<sup>2</sup> Red List Coordinator, Kew, Richmond, Surrey, United Kingdom
- 2014    Rankou H and **J Sharma**. 2014. *Cypripedium acaule*. *The IUCN Red List of Threatened Species* 2014: e.T43315493A43327599. <https://dx.doi.org/10.2305/IUCN.UK.2014-1.RLTS.T43315493A43327599.en>.
- 2012 - 2013    **Project Supervisor** and host for a Ph.D. student, Paulo Ricardo Almeida, from Universidade Estadual de Feira de Santana (UEFS), Campo Limpo, Feira de Santana, Bahia, Brazil.
- 2013    Smith ME, GM Bonito, ZW Ge, **J Sharma**, and TB Brenneman. Exploring the potential of co-cropping the pecan truffle (*Tuber lyonii*) with pecan (*Carya illinoensis*) in the Southeastern US. 1<sup>st</sup> International Congress of Trufficulture. Teruel, Spain.

- 2013 **Sharma J.** Overview of multiple, multifaceted orchid conservation projects. 5<sup>th</sup> International Orchid Conservation Congress. 2-6 December. Saint-Denis, Ile De La Reunion.
- 2012 **Invited Speaker.** Sharma J. Mycorrhizal strategies in the Orchidaceae. School of Biology (Mycorrhizal Symbiosis Graduate Course), Universidad de Costa Rica. 30 May. San Jose, Costa Rica.
- 2011 **Invited Speaker.** Sharma J, M Pandey\*\*, and DL Taylor. Tools for orchid conservation genetics and mycorrhizal assessment. New Research Tools for Illuminating the Ecology and Evolution of Orchids: A Post-International Botanical Congress Workshop. Cranbourne Botanical Gardens. 30 July. Melbourne, Australia.
- 2011 **Invited Lecturer.** Sharma J. Plant conservation genetics and ecology: molecular tools and applications. 5 August. Department of Biotechnology, Kathmandu University, Nepal.
- 2010 **Plenary Speaker.** Sharma J. Orchids: models of biological complexity. Swiss Group for Mass Spectrometry. 3-5 November. Beatenberg, Switzerland. Invited by Dr. Yury Tsybin, Ecole Polytechnique Federale de Lausanne.  
<https://10times.com/sgms-meeting>
- 2004 – **Chief Editor**, Native Orchid Conference Journal (a North American Publication). 2010
- 2009 **Sharma J**, JE Funderburk, and L Mounds. Thysanoptera inhabiting native terrestrial orchids in southeastern USA. The IX International Symposium on Thysanoptera and Tospoviruses. 30 August-3 September. Gold Coast, Australia.
- 2008 **Appointed Meeting Secretary.** International Union for Conservation of Nature Species Survival Commission (IUCN SSC) North American Region Orchid Specialist Group. 25 January. Miami, Florida, USA.
- 2008 Goedeke T, **J Sharma**, P Delphey, and K Marshall-Mattson\*. 2008. *Platanthera praeclara*. *The IUCN Red List of Threatened Species* 2008: e.T132834A3464336.  
<https://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T132834A3464336.en>.
- 2007 **Invited Co-presenter.** Graves WR and J Sharma. The potential for new auxins: evaluation of Indole-3-Succinic Acid. Proceedings of the International Plant Propagators' Society Meeting. 16-19 September. Montreal, Canada.
- 2007 **Invited Speaker.** Sharma J and WR Graves. 2007. Propagation of some underused North American woody taxa. Proceedings of the International Plant Propagators' Society Meeting. 16-19 September. Montreal, Canada.

- 2007 **Appointed Meeting Secretary.** IUCN SSC North American Region Orchid Specialist Group. 19-24 March. San Jose, Costa Rica.
- 2005 **Collaborator.** Research visit with Dr. Marc-Andre Selosse, Professor, University of Montpellier. 1-4 June and 4-9 December. Montpellier, France.
- 2005 **Sharma J** and JR Rich. American ornamental plants resistant to three *Meloidogyne* species. Pest Management Council of the Philippines. 3-6 May. Nueva Ecija, Philippines.
- 2005 **Presenter and Participant.** USDA Western Education/Extension and Research Activities (WERA) - 058 Meeting. 21-27 May. Amsterdam, Netherlands.
- 2005 **Invited Co-Organizer.** Co-organized with Conference Chair (Lorne Heshka) to arrange the Annual Native Orchid Conference Meeting. 9-12 July. Winnipeg, Manitoba, Canada.
- 2005 **Invited Speaker.** Sharma J. Mycorrhizal and genetic diversity in *Platanthera praeclara*: implications for conservation. Native Orchid Conference. 9-12 July. Winnipeg, Manitoba, Canada.
- 2004 **Sharma J** and JR Rich. Assessment of woody ornamental plants for resistance to three *Meloidogyne* species. Organization of Nematologists in Tropical America. 4-8 October. Puerto Vallarta, Mexico.

## **MEMBERSHIP IN PROFESSIONAL AND HONORARY SOCIETIES**

### **Professional:**

#### **International:**

1. **International Union for Conservation of Nature Species Survival Commission (IUCN SSC)**
  - a. Invited Member, Orchid Specialist Group, 2007 - Present
  - b. Vice-Chair, IUCN SSC North American Region OSG, 2007 – Present
2. **North American Orchid Conservation Center (NAOCC)**
  - a. Invited Member, Fungal Bank Committee, 2013 - Present
  - b. Invited Member, Seed Bank Committee, 2013 - Present
  - c. Appointed Coordinator, Southwest Region, 2014 - Present

#### **National:**

1. **Native Orchid Conference, Inc. (NOC)**
  - a. Member, 2002 – Present
  - b. Founding Board Member, 2002 - 2005

- c. Publication Committee Member, Native Orchid Conference Journal, 2010 - Present.
  - d. Chief Editor, Proceedings of the 8th Native Orchid Conference Meeting, 2010
  - e. Chief Editor, Native Orchid Conference Journal, 2004 – 2010
2. **Ecological Society of America (ESA)**
    - a. Member, 2006 - Present
    - b. Secretary, Plant Population Ecology Section, 2009-2010.
  3. **USDA NIFA Western Education/Extension and Research Activities (USDA WERA) - 058**
    - a. Member, 2004 - 2005
    - b. Treasurer, 2005 - 2006
    - c. Vice-Chair, 2006 - 2007
    - d. Organizer and Host, Annual Meeting, 2006
    - e. Chair, 2007 – 2008
  4. **American Society for Horticultural Science (ASHS)**
    - a. Member, 2003 - 2016
    - b. Chair, 2009-2010; Vice-Chair, 2008-2009; Secretary, 2007-2008, Nursery Working Group
    - c. Vice-Chair, 2009-2010; Secretary, 2008-2009, Water Utilization and Management Working Group
    - d. Appointed Member, ASHS Cross Commodity Publication Award Committee, 2008 - 2010.
  5. **Botanical Society of America (BSA)**
    - a. Member, 2008, 2009, 2014

**Regional/State:**

1. **Texas Plant Conservation Alliance (TPCA)**
  - a. Member, 2009 – Present

Honorary: None

## **HONORS AND AWARDS**

### **Honors:**

1. **2018.** CASNR Outstanding Research Award. Texas Tech University.
2. **2017.** Barnie E. Rushing Distinguished Research Award in Science, Technology, Engineering, and Mathematics. Texas Tech University.
3. **2015.** CASNR Junior Faculty Award. Texas Tech University.
4. **2011.** Certificate of Appreciation. Dept. of Biotechnology, Kathmandu University, Nepal.
5. **2010.** Student Disability Services Outstanding Faculty Member (nominated by students in PSS 1411 003).
6. **2007.** Certificate of Appreciation. International Plant Propagators' Society. Eastern Region, North America.
7. **2005.** Certificate of Appreciation. Master Gardeners. Gainesville, Florida.
8. **2002.** Selected Finalist. Presidential Management Intern Program. US Department of State Office of Personnel Management. Washington DC.

### **Awards:**

1. **2019.** NSF Reintegrating Biology Jumpstart Awardee. Selected from a national pool of scientists for a sponsored event to develop biology vision for future.  
<https://reintegratingbiology.org/vision-papers/>. 3 – 6 December. Austin, TX (jumpstart events were organized in 4 different cities; I elected to attend in Austin b/c of proximity).
2. **2017.** Presidential Fellowship awarded to a Ph.D. student Ms. Shan Wong to pursue a program under my supervision. Texas Tech University Graduate School.
3. **2012.** National Science Foundation NSF FIRST IV Fellow awarded to a mentor-postdoctoral fellow team. My postdoctoral associate Dr. Madhav Pandey and I designed inquiry-based, student centered teaching activities, which he applied in the classroom.
4. **2012.** Metagenomics Workshop Travel Award. National Science Foundation sponsored workshop organized by Dr. Tandy Warnow at University of Texas at Austin.
5. **2011.** Research Travel Award. West Texas Association of Women in Science (WT - AWIS). To support travel to Australia for a research presentation.
6. **2000.** Superior Graduate Achievement Award. University of Missouri - Columbia.
7. **1998.** Superior Graduate Achievement Award. University of Missouri - Columbia.

## **AREA OF EXPERTISE**

1. Plant ecology
2. Orchid mycorrhizal / microbial ecology
3. Population genetics
4. Plant conservation ecology

## **PATENTS** None

## **PUBLICATIONS<sup>1</sup>**

**Books:** None

### **Book Chapters:**

1. Zettler LW, **J Sharma**, and FN Rasmussen. 2003. Mycorrhizal Diversity (Chapter 11; pp. 205-226). *In* Orchid Conservation. KW Dixon, SP Kell, RL Barrett and PJ Cribb (eds). 418 pages. Natural History Publications, Kota Kinabalu, Sabah, Malaysia. ISBN: 9838120782

### **Books and Book Chapters Edited:**

1. **Sharma J.** (Editor). 2010. North American Native Orchid Conservation: Preservation, Propagation, and Restoration. Conference Proceedings of the Native Orchid Conference - Green Bay, Wisconsin. Native Orchid Conference, Inc., Greensboro, North Carolina. 131 pages, plus CD.  
(Public Review by Dr. Paul M. Catling published in The Canadian Field-Naturalist Vol. 125. pp 86 - 88; <http://journals.sfu.ca/cfn/index.php/cfn/article/viewFile/1142/1146>).

### **Peer-reviewed Publications (besides Journal publications or refereed proceedings; generated under an international, funded project)**

1. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2016. *Calopogon multiflorus*. *The IUCN Red List of Threatened Species* 2016: e.T64175911A86066804. <https://dx.doi.org/10.2305/IUCN.UK.2016-1.RLTS.T64175911A86066804.en>.
2. Treher, A., **Sharma, J.**, Frances, A. & \*Poff, K. 2015. *Basiphyllaea corallicola*. *The IUCN Red List of Threatened Species* 2015: e.T64175902A64175905. <https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64175902A64175905.en>.
3. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Corallorhiza bentleyi*. *The IUCN Red List of Threatened Species* 2015: e.T64175940A64175949. <https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64175940A64175949.en>.
4. Treher, A., **Sharma, J.**, Frances, A. & \*Poff, K. 2015. *Eulophia ecristata*. *The IUCN Red List of Threatened Species* 2015: e.T64176842A64176871. <https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176842A64176871.en>.
5. Treher, A., **Sharma, J.**, Frances, A. & \*Poff, K. 2015. *Galeandra bicarinata*. *The IUCN Red List of Threatened Species* 2015: e.T64175965A64175968. <https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64175965A64175968.en>.
6. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Hexalectris revoluta*. *The IUCN Red List of Threatened Species* 2015: e.T64176137A65215487. <https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176137A65215487.en>.

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<sup>1</sup> Graduate or undergraduate students indicated with an asterisk (\*) and postdocs with two asterisks (\*\*).

7. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Hexalectris warnockii*. *The IUCN Red List of Threatened Species* 2015: e.T64176203A64176207.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176203A64176207.en>.
8. Treher, A., **Sharma, J.**, Frances, A. & \*Poff, K. 2015. *Isotria medeoloides*. *The IUCN Red List of Threatened Species* 2015: e.T64176265A65215480.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176265A65215480.en>.
9. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Malaxis bayardii*. *The IUCN Red List of Threatened Species* 2015: e.T64176353A64176361.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176353A64176361.en>.
10. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Malaxis wendtii*. *The IUCN Red List of Threatened Species* 2015: e.T64176425A64176428.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176425A64176428.en>.
11. Treher, A., **Sharma, J.**, Frances, A. & \*Poff, K. 2015. *Oncidium ensatum*. *The IUCN Red List of Threatened Species* 2015: e.T64176473A64176476.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176473A64176476.en>.
12. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Peristylus holochila*. *The IUCN Red List of Threatened Species* 2015: e.T64176722A64176727.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176722A64176727.en>.
13. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Platanthera chapmanii*. *The IUCN Red List of Threatened Species* 2015: e.T64176634A64176638.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176634A64176638.en>.
14. Treher, A., **Sharma, J.**, Frances, A. & \*Poff, K. 2015. *Platanthera integrilabia*. *The IUCN Red List of Threatened Species* 2015: e.T64176733A64176739.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176733A64176739.en>.
15. Treher, A., **Sharma, J.**, Frances, A. & \*Poff, K. 2015. *Platanthera leucophaea*. *The IUCN Red List of Threatened Species* 2015: e.T64176760A64176769.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176760A64176769.en>.
16. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Platanthera yadonii*. *The IUCN Red List of Threatened Species* 2015: e.T64176580A64176583.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176580A64176583.en>.
17. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Platanthera yosemitensis*. *The IUCN Red List of Threatened Species* 2015: e.T64176784A64176787.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176784A64176787.en>.



18. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Platanthera zothecina*. *The IUCN Red List of Threatened Species* 2015: e.T64176810A64176813.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176810A64176813.en>.
19. Treher, A., **Sharma, J.**, Frances, A. & \*Poff, K. 2015. *Spiranthes brevilabris*. *The IUCN Red List of Threatened Species* 2015: e.T64176923A64176934.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176923A64176934.en>.
20. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Spiranthes delitescens*. *The IUCN Red List of Threatened Species* 2015: e.T22486502A22488106.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T22486502A22488106.en>.
21. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Spiranthes diluvialis*. *The IUCN Red List of Threatened Species* 2015: e.T64176965A64176968.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176965A64176968.en>.
22. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Spiranthes infernalis*. *The IUCN Red List of Threatened Species* 2015: e.T64176975A64176992.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176975A64176992.en>.
23. Goedeke, T., **Sharma, J.**, Treher, A., Frances, A. & \*Poff, K. 2015. *Spiranthes parksii*. *The IUCN Red List of Threatened Species* 2015: e.T64177005A64177008.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64177005A64177008.en>.
24. Treher, A., **Sharma, J.**, Frances, A. & \*Poff, K. 2015. *Spiranthes torta*. *The IUCN Red List of Threatened Species* 2015: e.T64176890A64176893.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176890A64176893.en>.
25. Treher, A., **Sharma, J.**, Frances, A. & \*Poff, K. 2015. *Triphora amazonica*. *The IUCN Red List of Threatened Species* 2015: e.T64177031A64177045.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64177031A64177045.en>.
26. Treher, A., **Sharma, J.**, Frances, A. & \*Poff, K. 2015. *Triphora craigheadii*. *The IUCN Red List of Threatened Species* 2015: e.T64177016A64177020.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64177016A64177020.en>.
27. Treher, A., **Sharma, J.**, Frances, A. & \*Poff, K. 2015. *Triphora yucatanensis*. *The IUCN Red List of Threatened Species* 2015: e.T64177061A64177065.  
<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64177061A64177065.en>.

## Refereed Journals:

1. Cook K\* **J Sharma** AD Taylor I Harriott DL Taylor. 2022. Epiphytic fungal communities vary by substrate type and at sub-meter spatial scales. *Molecular Ecology*. *IF* 6.131
2. Kaur J and **J Sharma**. 2021. Orchid Root Associated Bacteria: Linchpins or Accessories? *Front. Plant Sci.* 12:661966. doi: 10.3389/fpls.2021.661966. *IF* 4.407
3. Shah S\* K Chand B Rekadwad YS Shouche **J Sharma** B Pant. 2021. A prospectus of plant growth promoting endophytic bacterium from an orchid (*Vanda cristata*). *BMC Biotechnology* 21: 1-9. *IF* 2.777
4. Kaur J\* C Phillips **J Sharma**. 2020. Host population size is linked to mycorrhizal fungal communities in its roots and soil, which are shaped by soil chemistry and microclimate. *Mycorrhiza* 31: 17–30. <https://doi.org/10.1007/s00572-020-00993-5>. *IF* 3.215
5. Kaur J\* D Schwilk **J Sharma**. 2020. Seed germination and plant fitness response of a narrowly endemic, rare winter annual to spatial heterogeneity in microenvironment. *Plant Species Biology*. <https://doi.org/10.1111/1442-1984.12292>. *IF* 2.077
6. Chand K S Shah\* **J Sharma** M Paudel B Pant. 2020. Isolation, characterization, and plant growth-promoting activities of endophytic fungi from a wild orchid *Vanda cristata*. *Plant Signaling & Behavior* 15: e1744294. <https://doi.org/10.1080/15592324.2020.1744294>. *IF* 1.701
7. Kumar P **J Sharma** M Isaac-Williams GS Rawat. 2020. *Dendrobium hesperis* (Orchidaceae). *CURT Botanical* 37: 180-190. <https://doi.org/10.1111/curt.12333>.
8. Kaur J\* L Andrews **J Sharma**. 2019. High specificity of a rare terrestrial orchid toward a rare fungus within the North American tallgrass prairie. *Fungal Biology* 123: 895-904. <https://doi.org/10.1016/j.funbio.2019.09.010>. *IF* 2.921
9. Shah S\* B Pant **J Sharma** R Sharma YS Shouche. 2019. Fungal Planet description sheets. *Coniochaeta endophytica* Sujit Shah, sp. nov. *Persoonia* 42: 291-473. <https://doi.org/10.3767/persoonia.2019.42.11>. *IF* 6.860
10. Rayamajhi N\* **J Sharma**. 2018. Genetic diversity and structure of a rare endemic cactus and an assessment of its genetic relationship with a more common congener. *Genetica* 146: 329-340. <https://doi.org/10.1007/s10709-018-0024-0>. *IF* 2.148
11. Chopra R\* CE Simpson A Hillhouse P Payton **J Sharma** M Burow. 2018. High-Throughput SNP Genotyping Reveals Major QTLs for Domestication Related Traits among A- Genome Peanut Wild Species. *Molecular Genetics and Genomics* 293:1477–1491. <https://doi.org/10.1007/s00438-018-1472-z>. *IF* 2.994

12. Kaur J\* and **J Sharma**. 2017. Phylogeography of *Corethrogyne filaginifolia*. Madrono 64:124-137. <https://doi.org/10.3120/0024-9637-64.4.124>.
13. Kaur J\* KE Poff\* **J Sharma**. 2017. A rare temperate terrestrial orchid selects similar *Tulasnella* taxa in ex situ and in situ environments. Plant Ecology 219: 45-55. <https://link.springer.com/article/10.1007/s11258-017-0776-0>. IF 1.852
14. Salazar GA TJ Hernandez-Lopez **J Sharma** R Jimenez-Machorro J Trevino-Carreón. 2016. *Greenwoodiella*, a new genus of Spiranthinae (Orchidaceae) from North- and Central America and the Greater Antilles, with description of a new species from the Chihuahuan Desert. Systematic Botany 41:823-838. <https://doi.org/10.1600/036364416X693937>. IF 2.209
15. Poff KE\* **J Sharma** M Richards. 2016. Cold-moist stratification improves germination in a temperate terrestrial orchid. Castanea 81: 292-301. <https://doi.org/10.2179/16-098>.
16. Kaur J\* **J Sharma** L Markovchick. 2016. *Chorizanthe orcuttiana* (Polygonaceae): Comparative vegetative morphology with two co-occurring taxa and new observations on its phenology. Journal of Botanical Sciences 5:56-60. <http://www.rroij.com/open-access/chorizanth-orcuttiana-polygonaceae-comparative-vegetative-morphology-with-two-cooccurring-taxa-and-new-observations-onits-phenolo-.php?aid=74549>. ( [https://www.semanticscholar.org/paper/Chorizanth-orcuttiana-\(Polygonaceae\)%3A-Comparative-Kaur-Sharma/59257aec944f07b3c3b9564b899376a129b0899f](https://www.semanticscholar.org/paper/Chorizanth-orcuttiana-(Polygonaceae)%3A-Comparative-Kaur-Sharma/59257aec944f07b3c3b9564b899376a129b0899f) )
17. Pandey M\*\* **J Sharma**. 2015. Disjunct populations of a locally common North American orchid exhibit high genetic variation and restricted gene flow. Open Journal of Genetics 5:159-175. <https://doi.org/10.4236/ojgen.2015.54012>. GBIF 1.148
18. Pandey M\*\* M Richards **J Sharma**. 2015. Microsatellite-based genetic diversity patterns in disjunct populations of a rare orchid. Genetica 143: 693-704. <https://doi.org/10.1007/s10709-015-9867-9>. IF 2.148
19. Richards M **J Sharma**. 2014. A review of conservation efforts for *Platanthera chapmanii* in Texas and Georgia. Native Orchid Conference Journal 11: 1-11. ISSN 1554-1169.
20. Pandey M\*\* **J Sharma**. 2013. Characterization of microsatellite loci for *Cypripedium kentuckiense* (Orchidaceae). Conservation Genetics Resources 5: 1031 - 1033. DOI: 10.1007/s12686-013-9961-1. IF 2.183
21. Pandey M\*\* **J Sharma** DL Taylor YL Yadon. 2013. A narrowly endemic photosynthetic orchid is non-specific in its mycorrhizal associations. Molecular Ecology 22: 2341–2354. DOI: 10.1111/mec.12249. IF 6.275

22. Fletcher EH\* M Thetford **J Sharma** S Jose. 2012. Effect of root competition and shade on survival and growth of nine woody plant taxa within a pecan alley cropping system. DOI 10.1007/s10457-012-9507-7. *IF 2.105*
23. Pandey M\*\* **J Sharma**. 2012. Efficiency of microsatellite isolation from orchids via next generation sequencing. Open Journal of Genetics 2: 167-172. DOI:10.4236/ojgen.2012.24022.
24. **Sharma J**, S George\*\* M Pandey\*\* JG Norcini HE Perez. 2011. Intra-specific genetic diversity of *Aristida stricta* Michx. native to the Southeastern Coastal Plain in North America. Genetica 139: 261-271. DOI 10.1007/s10709-010-9545-x. *IF 2.148*
25. Peterson BJ\* WR Graves **J Sharma**. 2011. Phenotypic and genotypic diversity of eastern leatherwood in five populations that span its geographic distribution. American Midland Naturalist 165(1): 1-21. DOI: 10.1674/0003-0031-165.1.1. *IF 0.827*
26. **Sharma J** D Paini JE Funderburk LA Mound. 2011. Host Associations of Thysanoptera with *Paspalum distichum* Fluegge and *Paspalum notatum* L. (Poales: Poaceae). Annals of the Entomological Society of America 104(4): 733-738. *IF 1.317*
27. Light ML **J Sharma**. 2010. Comparison of *in situ* germination of *Pogonia ophioglossoides* in the northern and southern parts of its range. Native Orchid Conference Journal 7(2): 12-24. ISSN 1554-1169.
28. George S\*\* **J Sharma** YL Yadon. 2009. Genetic diversity of the endangered and narrow endemic *Piperia yadonii* (Orchidaceae) assessed with ISSR polymorphisms. American Journal of Botany 96(11): 2022-2030. *IF 3.052*
29. Peterson BJ\* WR Graves **J Sharma**. 2009. Color of pubescence on bud scales conflicts with keys for identifying species of *Dirca* (Thymelaeaceae). Rhodora 111(945): 126-130. *IF 0.927*
30. **Sharma J**, JA Schrader, and WR Graves. 2008. Ecology and phenotypic variation of *Leitneria floridana* (Leitneriaceae) in disjunct native habitats. Castanea 73(2): 94 - 105. *IF 0.985*
31. Funderburk JE LA Mound **J Sharma**. 2007. Thysanoptera associated with native, terrestrial orchids in northern Florida and southern Georgia. Journal of Entomological Science 42(4):573-581. *IF 0.947*
32. **Sharma J** ML Ishida\*\* VL Yadon. 2007. Mycorrhizal diversity of an endemic terrestrial orchid. Lankesteriana 7(1-2): 215-218.
33. Graves WR JA Schrader **J Sharma**. 2006. Cold hardiness of the rare *Dirca occidentalis*: comparisons to *Dirca palustris* from disparate provenances. Journal of Environmental Horticulture 24(3): 169-172.
34. **Sharma J** GW Knox ML Ishida\*\*. 2006. Root formation on stem cuttings of yellow-flowered cultivars of *Magnolia* is influenced by time-after-budbreak and IBA. HortScience 41(1): 202-206. *IF 1.114*
35. **Sharma J** JR Rich. 2005. Assessment of woody ornamental plants for resistance to three *Meloidogyne* species. Nematropica 35: 23-30.
36. **Sharma J** WR Graves. 2005. Propagation of two native shrubs, *Rhamnus alnifolia* and *Rhamnus lanceolata*. Journal of Environmental Horticulture 23(2): 86-90.
37. **Sharma J**. 2005. Federally threatened *Platanthera praeclara*: a model for plant conservation. The Native Orchid Conference Journal 2(1): 11-14, 19-20. ISSN 1554-1169.

38. **Sharma J** WR Graves. 2004. Germination of *Leitneria floridana* seeds from disjunct populations. HortScience 39(7): 1695-1699. *IF 1.020*
39. **Sharma J** WR Graves. 2004. Midwinter cold hardiness of *Leitneria floridana* (Leitneriaceae) from three provenances. Journal of Environmental Horticulture 22(2): 88-92.
40. **Sharma J** LW Zettler JW van Sambeek. 2003. A survey of mycobionts of federally threatened *Platanthera praeclara* (Orchidaceae). Symbiosis 34: 145-155. *IF 1.925*
41. **Sharma J** LW Zettler JW van Sambeek MR Ellersieck CJ Starbuck. 2003. Symbiotic seed germination and mycobionts of federally threatened *Platanthera praeclara* (Orchidaceae). American Midland Naturalist 149: 104-120. *IF 0.719*

## Proceedings:

### Refereed

### Invited:

1. Chen Y V Pai **J Sharma** JA Clarke K Torii E Vargas-Garzon. 2019. Harnessing non-neural intelligence for AI: a vision paper. <https://reintegratingbiology.org/vision-papers/>.
2. Salazar GA **J Sharma**. 2017. *Greenwoodiella deserticola* The Chihuahuan Desert Orchid. Orchids. May (<https://secure.aos.org/products/53/316>): 390-393.
3. **Sharma J** and P Delphey. 2010. Orchid conservation and IUCN Red List: *Platanthera praeclara*, a case study. Pp. 9-16 In Conference Proceedings of the Native Orchid Conference - Green Bay, Wisconsin. J Sharma (ed.). Native Orchid Conference, Inc., Greensboro, North Carolina.
4. Graves W and **J Sharma**. 2007. The potential for new auxins: evaluation of indole-3-succinic acid. Proceedings of the International Plant Propagators' Society Meeting. 16-19 September. Montreal, Canada.
5. **Sharma J.** and WR Graves. 2007. Propagation of some underused North American woody taxa. Proceedings of the International Plant Propagators' Society Meeting. 16-19 September. Montreal, Canada.
6. Govindasamy R, MJ Cochran, **J Sharma**, M McClelland, and R Frans. 1995. A comparison of conservation till to conventional till: an economic analysis. Proceedings of 1995 Cotton Research Meetings. DM Oosterhuis (ed.). Arkansas Agricultural Experiment Station Special Report 172: 90-94.
7. Govindasamy R, MJ Cochran, **J Sharma**, M McClelland, and R Frans. 1995. Conventional till vs. conservation till in cotton. Conservation Technology in Arkansas Agriculture. M McClelland (ed.). Arkansas Agricultural Experiment Station Research Series.

### Volunteered:

1. **Sharma J** and A Bolques. 2007. Nutrient profile of runoff water at commercial plant nurseries in southeastern U.S. Proceedings of Southern Nursery Association Research Conference 52:29-33.

2. **Sharma J**, JG Norcini and GW Knox. 2006. Organic slow release fertilizer for minimizing nutrient loss and optimizing growth of *Hemerocallis*. Proceedings of Southern Nursery Association Research Conference 51: 544-548.
3. **Sharma J**, GW Knox, and ML Ishida<sup>\*\*</sup>. 2005. Rooting of cuttings of yellow-flowered cultivars of *Magnolia*. Proceedings of Southern Nursery Association Research Conference. Proceedings of Southern Nursery Association Research Conference 50: 422-426.
4. **Sharma J**. 2004. Establishment of perennials in hydrophilic polymer-amended soil. Proceedings of Southern Nursery Association Research Conference 49: 530-532.
5. **Sharma J**, JW van Sambeek, and CJ Starbuck. 2003. Western prairie fringed orchid: its status, ecology, and in vitro propagation. Pp. 189-193. S. Foré (ed). Proceedings of the Eighteenth North American Prairie Conference, 250 p. Truman State University, Kirksville, Missouri.

**Non-refereed** – None

#### **Abstracts:**

**This list is EXCLUSIVE of presentations and lectures that did not have an abstract associated with them.**

**Invited International: Please also see Invited Lectures and Workshops. Several Invites were declined due to scheduling conflicts with teaching and research.**

1. **Sharma J**. 2021. Ecological niches of rare species: heterogeneity and specificity across geographic scales. University of Puerto Rico Seminar. 19 February. Puerto Rico.
2. **Sharma J**, K Petterson, and J Kaur. 2021. Do orchids with intercontinental distributions have specialized mycorrhizal niches? Strategies and Methods of Botanical Gardens for Conservation and Sustainable Use of Biological Diversity of Natural and Cultivated Flora – V. Central Botanical Gardens of NAS of Belarus. 15 June. Minsk, Belarus. (Abstract; Oral)
3. Wong S\* **J Sharma**. 2020. Mycorrhizal diversity of *Vanilla* species in Costa Rica. Osa Conservation Symposium. 08 January. Puerto Jimenez, Costa Rica. (Abstract; Poster)
4. **Sharma J**. 2018. Do orchids with intercontinental distributions have specialized mycorrhizal niches? Strategies and Methods of Botanical Gardens for Conservation and Sustainable Use of Biological Diversity of Natural and Cultivated Flora – V. Central Botanical Gardens of NAS of Belarus. 22 June. Minsk, Belarus. (Abstract; Oral)
5. **Sharma J** M Pandey<sup>\*\*</sup> and DL Taylor. 2011. Tools for orchid conservation genetics and mycorrhizal assessment. New Research Tools for Illuminating the Ecology and Evolution of Orchids: A Post-International Botanical Congress Workshop. Cranbourne Botanical Gardens. 30 July. Melbourne, Australia. (Abstract; Oral)
6. **Sharma J**, M Pandey<sup>\*\*</sup>, and DL Taylor. 2011. Plant conservation genetics and ecology: molecular tools and applications. 5 August. Department of Biotechnology, Kathmandu University, Nepal. (Presentation CD; Oral)
7. **Sharma J**. 2010. Orchids: models for biological interactions. Swiss Mass Spectrometry

- Group Conference. 4-5 November. EPFL, Lausanne, Switzerland. (Abstract; Oral)
8. Light ML and **J Sharma**. 2008. Comparison of *in situ* germination of *Pogonia ophioglossoides* at its distributional extremes. World Orchid Congress. 23 January. Miami, Florida. (Abstract; Oral)
  9. **Sharma J** and WR Graves. 2007. Propagating underused North American woody species: implications for horticulture and conservation. International Plant Propagators' Society. 16-19 September. Montreal, Canada. (Abstract; Oral)
  10. Graves WR and **J Sharma**. 2007. New auxins for woody plant propagation. International Plant Propagators' Society. 16-19 September. Montreal, Canada. (Abstract; Oral)
  11. **Sharma J**. 2005. Mycorrhizal and genetic diversity in *Platanthera praeclara*: implications for conservation. Native Orchid Conference. 9-12 July. Winnipeg, Manitoba, Canada. (Abstract; Oral)

### **Volunteered International:**

1. Wong S\*, J Kaur A Karremans **J Sharma**. 2020. Mycorrhizal diversity of *Vanilla hartii* and co-occurring *Vanilla* species in Costa Rica. 23<sup>rd</sup> World Orchid Conference. April. Taichung City, Taiwan. (Abstract; Poster)
2. Kaur J\*, CB Harder **J Sharma**. 2020. Endophytic bacterial communities of congeneric temperate orchids are distinct and uncoupled from soil, but linked to host phenology and population size. 23<sup>rd</sup> World Orchid Conference. April. Taichung City, Taiwan. (Abstract; Poster)
3. Cook K\*, CB Harder\*\*, **J Sharma**, AD Taylor, DL Taylor. 2019. Small scale spatial distribution of orchid mycorrhizal fungi in a tropical tree canopy. International Conference on Mycorrhizae. Meridá, Mexico. (Abstract; Oral)
4. Harder CB\*\*, K Cook\*, AD Taylor, M Fernandez\*, D Bograin, J Kaur\*\*, DL Taylor, and **J Sharma**. 2019. Fungal host specificity of epiphytic green orchids in a Neotropical canopy– spatial distributions of fungi and their effects on epiphytic orchids. XVIIIICEM (18th European mycology conference), September 2019. Białowieża, Poland. (Abstract, Oral)
5. **Sharma J**. 2013. Overview of multiple, multifaceted orchid conservation projects. 5<sup>th</sup> International Orchid Conservation Congress. Reunion. 2-6 December. Saint-Denis, Ile De La Reunion. (Abstract; Poster)
6. Smith ME, GM Bonito, ZW Ge, **J Sharma**, and TB Brenneman. 2013. Exploring the potential of co-cropping the pecan truffle (*Tuber lyonii*) with pecan (*Carya illinoensis*) in the Southeastern US. 1<sup>st</sup> International Congress of Trufficulture. 5-8 March. Teruel, Spain. (Abstract; Poster)
7. **Sharma J**, JE Funderburk, and L Mound. 2009. Thysanoptera associated with native orchids of southeastern US. The IX International Symposium on Thysanoptera and Tospoviruses. 30 August-3 September. Gold Coast, Australia. (Abstract, Oral)
8. **Sharma J**, ML Ishida\*\*, and VL Yadon. 2007. Mycorrhizal diversity of an endemic terrestrial orchid. International Orchid Conservation Congress. 19-23 March. San Jose, Costa Rica. (Abstract; Oral)
9. **Sharma J**. and JR Rich. 2005. American ornamental plants resistant to three *Meloidogyne* species. Pest Management Council of the Philippines. 3-6 May. PhilRice, Munoz, Nueva Ecija, Philippines. (Abstract; Poster)

10. **Sharma J.** and JR Rich. 2004. Assessment of woody ornamental plants for resistance to three *Meloidogyne* species. Organization of Nematologists in Tropical America. 4-8 October. Puerto Vallarta, Mexico. (Abstract; Oral)

**Invited National: Please also see Invited Lectures and Workshops. Several Invites were declined due to scheduling conflicts with teaching and research.**

1. **Sharma J.** 2021. Genomic and transcriptomic considerations for rare plant management. San Diego Management and Monitoring Program. 20 October. San Diego, California (Abstract, Oral)
2. **Sharma J.** 2020. Rare plant management and conservation. Department of Defense. 17 December. San Diego, California (Abstract, Oral)
3. **Sharma J.** 2020. Ecological niches of rare species: heterogeneity and specificity across geographic scales. Frontiers in International Research. 18 November. Texas Tech University, TX (Oral)
4. **Sharma J.** 2020. Environmental heterogeneity, population fitness, and conservation. San Diego Management and Monitoring Program Meeting. 18 August. San Diego, California (Abstract, Oral)
5. Kaur J\* **J Sharma.** 2020. Explaining the population ecology of rare orchid species by coupling climatic, edaphic and microbial constraints. San Diego Country Orchid Society Meeting. 02 June. San Diego, California (Abstract, Oral).
6. **Sharma J.** 2018. Ecological niches of rare species. Natural Resource Management Seminar. 05 October. Lubbock, Texas (Abstract, Oral)
7. **Sharma J.** 2016. Plant ecology and conservation research. Texas Plant Conservation Conference. 4-7 November. Fort Worth, Texas (Abstract, Oral)
8. Rayamajhi N\*, MD Burow, and **J Sharma.** 2014. Conservation genetics of *Sclerocactus brevihamatus* subsp. *tobuschii*. Texas Plant Conservation Conference. 5-8 November. Austin, Texas. (Abstract, Oral)
9. Poff K\*, **J Sharma,** and J Singhurst. 2014. Orchid conservation in Texas. Texas Plant Conservation Conference. 5-8 November. Austin, Texas. (Abstract, Poster)
10. Albano J, **J Sharma,** PC Wilson, G Zianti, and G Niu. 2007. Water remediation systems for plant nurseries. American Society for Horticultural Science. 16-19 July. Scottsdale, Arizona. (Abstract; Workshop; Oral)
11. **Sharma J,** D Haman, and J Fraleigh. 2006. A new, reduced-impact irrigation system: Gro-Eco®. American Society for Horticultural Science. 27-30 July. New Orleans, Louisiana. (Abstract; Workshop; Oral)
12. **Sharma J,** ML Ishida \*\*, and VL Yadon. 2006. Mycorrhizal ecology of *Piperia* (Orchidaceae). Native Orchid Conference. 9-12 June. Ashland, Oregon. (Abstract; Oral)
13. **Sharma J.** 2004. Mycorrhizal and genetic diversity in *Platanthera praeclara*: implications for conservation. USFWS *Platanthera praeclara* Recovery Team Meeting. 17-18 November. Mahoney Park, Nebraska. (Abstract; Oral)
14. **Sharma J.** 2001. A progress report on mycorrhizal associations, symbiotic seed germination, and allozyme diversity in the rare terrestrial orchid *Platanthera praeclara*. Western Prairie Fringed Orchid Working Group Meeting. 12-13 July. University of Minnesota, Crookston, Minnesota. (Abstract; Oral)



### **Volunteered National:**

1. Wong S\* J Kaur A Karremans **J Sharma**. 2020. Mycorrhizal Association among Three Co-occurring Vanilla Species in Costa Rica. 11 March. Lubbock, Texas. (Abstract; Poster)
2. Kaur J\* CB Harder **J Sharma**. 2020. Characterization of endophytic bacterial communities in congeneric temperate orchids with soil, host phenology and population size as the predictors. Ecological Society of America. 3-6 August. Virtual. (Abstract, Oral)
3. Petterson JK J Kaur **J Sharma**. 2020. Endofungal bacteria isolated from mycorrhizal fungi in a North American terrestrial orchid. Texas Plant Conservation Conference. 13-14 August 2020. Virtual. (Abstract, Poster)
4. Petterson JK J Kaur **J Sharma**. 2020. Diversity of mycorrhizal fungi, and endophytic and intra-hyphal bacteria in disjunct populations of a temperate terrestrial orchid. Ecological Society of America. 3-6 August. Virtual. (Abstract, Poster)
5. Markovchick L V Denney K Skye Gibson NC Johnson JI Querejeta R Swaty **J Sharma**, TG Whitham and CA Gehring. 2019. The mycological gap between research and management potential. Society for Ecological Restoration Southwest Chapter Annual Conference. 9 November. Tucson, Arizona. (Abstract, Oral)
6. Markovchick L V Denney KS Gibson NC Johnson J I Querejeta R Swaty **J Sharma** D Uhey TG Whitham and CA Gehring. 2019. Mind the myco gap (potential indicated by research vs. management). 15<sup>th</sup> Biennial Conference of Science & Management on the Colorado Plateau & Southwest Region. 10 September. Flagstaff, Arizona. (Abstract, Oral)
7. Cook K\* **J Sharma** AD Taylor, DL Taylor. 2019. Centimeter-scale structure and multi-year temporal persistence of arboreal fungal communities in a Costa Rican rainforest. Mycological Society of America Annual Meeting. August. Minneapolis, MN. (Abstract, Poster)
8. Fernández M\* J Kaur\*\* DL Taylor AD Taylor **J Sharma**. 2019. Temporal and spatial dynamics of epiphytic orchid mycorrhizae in a hyperdiverse tropical forest. Texas Tech University Graduate Seminar. December. Lubbock, Texas, USA. (Abstract, Poster)
9. Kaur J\* and **J Sharma**. 2018. Microniche characterization of a rare terrestrial orchid explains its population dynamics. 11<sup>th</sup> International Mycological Congress. 15-21 July. San Juan, Puerto Rico. (Abstract, Poster)
10. Cook K\* **J Sharma** A Taylor DL Taylor. 2018. Temporal stability of the fungal community in a tropical rainforest canopy. 11<sup>th</sup> International Mycological Congress. 15-21 July. San Juan, Puerto Rico. (Abstract, Poster)
11. Fernandez M\*, DL Taylor, AD Taylor and **J Sharma**. 2018. Temporal and phenological dynamics of epiphytic orchid mycorrhizae in a hyper-diverse tropical forest. European Orchid Council Conference and Exhibition (EOCCE). 23-25 March. Paris, France. (Abstract, Poster)
12. de la Guardia VM\* J Kaur\* **J Sharma**. Are root mycorrhizal communities an indicator of flowering in populations of a rare North American plant? Texas Tech University Undergraduate Research Conference. March. Lubbock, Texas (Abstract, Poster)
13. Cook K\* **J Sharma** AD Taylor and DL Taylor. 2017. Fungal community diversity and spatiotemporal structure in a Costa Rican rainforest canopy. IX Latin American Congress of Mycology. 22-25 August. Lima, Peru. (Abstract; Oral)

14. Kaur J\* and **J Sharma**. 2017. Spatial differences in population demography of a rare orchid as a result of mycorrhizal fungi. Ecological Society of America. 6-11 August. Portland, Oregon. (Abstract; Poster)
15. Fernandez M\* DL Taylor AD Taylor and **J Sharma**. 2017. Mycorrhizal diversity of tropical epiphytic orchids. Ecological Society of America. 6-11 August. Portland, Oregon. (Abstract; Oral)
16. Poff KE\* J Kaur\* and **J Sharma**. 2017. Diversity of mycorrhizal fungi in a temperate terrestrial orchid in ex situ and in situ environments. Ecological Society of America. 6-11 August. Portland, Oregon. (Abstract; Poster)
17. **Sharma J** and J Kaur\*. 2017. Structure of orchid mycorrhizal fungal communities in soil does not affect endo-mycorrhizal orchid root communities. Ecological Society of America. 6-11 August. Portland, Oregon. (Abstract; Poster)
18. Kunz D\* and **J Sharma**. Influence of mycorrhizal fungi on orchid seedling growth in vitro. Texas Tech University Undergraduate Research Conference. 29 March. Lubbock, Texas (Abstract, Poster).
19. Tovar PA\* E Terhonen\*\* J Kaur\* and **J Sharma**. 2016. A rare orchid exhibits temporal and spatial specificity toward mycorrhizal fungi across its populations within the North American tallgrass prairie. Ecological Society of America. 7-12 August. Ft. Lauderdale, Florida. (Abstract; Poster)
20. Kaur J\* RE Strauss **J Sharma**. 2016. *Chorizanthe orcuttiana* (Polygonaceae) demography: An outcome of fine scale spatial and temporal soil moisture changes. Ecological Society of America. 7-12 August. Ft. Lauderdale, Florida. (Abstract; Poster)
21. **Sharma J** and J Kaur\*. 2016. A new phylogeographic taxon of *Corethrogyne filaginifolia* (Asteraceae). Ecological Society of America. 7-12 August. Ft. Lauderdale, Florida. (Abstract; Poster)
22. Kaur J\*, **J Sharma**, RE Strauss. 2016. *Chorizanthe orcuttiana* (Polygonaceae) demography: an outcome of fine scale spatial and temporal soil moisture changes. Texas Tech University Graduate School Poster Competition. April. Lubbock, Texas. (Abstract; Poster)
23. Rayamajhi N\*, **J Sharma**, M Burow, and M Olson. 2015. Conservation genetics of *Sclerocactus brevihamatus* subsp. *tobuschii* and an assessment of its genetic relationship with *Sclerocactus brevihamatus* subsp. *brevihamatus*. Ecological Society of America. 9-14 August. Baltimore, Maryland. (Abstract; Poster)
24. Frances AL, AC Treher, T Goedeke, H Rankou, KE Poff\*, and **J Sharma**. 2015. Changes in taxonomy, threats, and distribution affect the extinction risk of rare U.S. orchids. Ecological Society of America. 9-14 August. Baltimore, Maryland. (Abstract; Poster)
25. Pandey M\* and **J Sharma**. 2015. Genetic variation and population structure of a North American orchid, *Pogonia ophioglossoides* (L.) Ker Gawl. Ecological Society of America. 9-14 August. Baltimore, Maryland. (Abstract; Poster)
26. **Sharma J**, M Pandey\*, and M Richards. 2015. Microsatellite-based population genetic diversity and structure of an uncommon orchid, *Cypripedium kentuckiense*. Ecological Society of America. 9-14 August. Baltimore, Maryland. (Abstract; Poster)
27. Chopra R\*, CE Simpson, A Hillhouse, DW Threadgill, P Payton, **J Sharma**, and MD Burow. 2014. Transcriptome sequence-based SNP map and QTL analysis of plant architectural traits of an F<sub>2</sub> population developed from an intraspecific cross of *Arachis duranensis* x *Arachis cardenasii*. Seventh International Conference of the Peanut

- Research Community: Advances in Arachis through Genomics & Biotechnology. November 2014. Savannah, Georgia. (Abstract; Oral)
28. Hamilton M\* and **J Sharma**. 2014. *Tuber lyonii* symbiosis with *Carya illinoensis*. Texas Pecan Growers Association. 13-15 July. San Marcos, Texas. (Poster and Demonstration)
  29. Smith ME, GM Bonito, **J Sharma**, TB Brenneman, R Healy. 2013. An update on the biology of the pecan truffle (*Tuber lyonii*) in the southeastern USA. Poster Session: Phylloplane and Rhizosphere Ecology: 517-P. APS/MSA joint meetings. Austin, Texas. (Abstract; Poster)
  30. **Sharma J**, DL Taylor, M Pandey\*\*, D Bogarin, F Pupulin, and J Warner. 2012. A common epiphytic orchid forms narrow, specific mycorrhizal associations. Ecological Society of America. 2-7 August. Portland, Oregon. (Abstract; Poster)
  31. Graves WR, M Pandey\*\*, and **J Sharma**. 2012. Assessment of mycorrhizal colonization in the genus *Dirca*. Ecological Society of America. 2-7 August. Portland, Oregon. (Abstract; Poster)
  32. Pandey M\*\* and **J Sharma**. 2012. Efficiency of microsatellite isolation from orchids via 454 sequencing. Ecological Society of America. 2-7 August. Portland, Oregon. (Abstract; Poster)
  33. Weeks S\* and **J Sharma**. 2012. Root Pruning Influences Growth of Romaine Lettuce in an Ebb-and-Flow Hydroponic System. Center for Undergraduate Research Conference. 16-18 April. Lubbock, Texas. (Abstract; Poster)
  34. Pandey M\*\*, DL Taylor, VL Yadon, and **J Sharma**. 2010. Mycorrhizal associations of an endemic terrestrial orchid. Ecological Society of America. 1-6 August. Pittsburgh, Pennsylvania. (Abstract; Poster)
  35. **Sharma J**, S George\*\*, JG Norcini, and HE Perez. 2009. Intra-specific ISSR variation in *Aristida stricta*. Paper 16986, PS 48-69, Ecological Society of America, Albuquerque, New Mexico. (Abstract; Poster)
  36. George S\*\* and **J Sharma**. 2008. Genetic diversity of *Piperia yadonii* (Orchidaceae). Ecological Society of America. 1-7 August. Milwaukee, Wisconsin. (Abstract; Oral)
  37. Fletcher T\*, M Thetford, and **J Sharma**. 2008. Influence of shade and nitrogen on growth of two North American shrubs: developing sustainable production practices. American Society for Horticultural Science Conference. July. Orlando, Florida. (Abstract; Poster)
  38. Govindarajan B\* and **J Sharma**. 2008. Nitrogen dynamics in a constructed wetland receiving plant nursery runoff in southeastern United States. American Society for Horticultural Science Conference. July. Orlando, Florida. (Abstract; Poster)
  39. **Sharma J** and A Bolques. 2007. Nutrient profile of runoff water at commercial plant nurseries in southeastern U.S. Southern Nursery Association Research Conference. 9-12 August 2007. Atlanta, Georgia. (Abstract; Poster)
  40. **Sharma J**, JG Norcini, and GW Knox. 2006. Organic slow release fertilizer for minimizing nutrient loss and optimizing growth of *Hemerocallis*. Southern Nursery Association Research Conference. 8-12 August. Atlanta, Georgia. (Abstract; Poster)
  41. **Sharma J** and ML Ishida\*\*. 2006. Mycorrhizal ecology of *Piperia yadonii* (Orchidaceae). Ecological Society of America. 6-11 August. Memphis, Tennessee. (Abstract; Oral)

42. Funderburk JE and **J Sharma**. 2006. Thrips associated with native orchids in northern Florida. Annual meeting of the Florida Entomological Society. 23-26 July. Jupiter Beach, Florida. (Abstract; Oral)
43. Ishida ML\*\* and **J Sharma**. 2006. Bacteria associated with *Paspalum distichum* denitrify and solubilize phosphate. American Society for Microbiology. 21-25 May. Orlando, Florida. (Abstract; Poster)
44. **Sharma J**, GW Knox, and ML Ishida\*\*. 2005. Rooting of Cuttings of yellow-flowered Cultivars of *Magnolia*. Southern Nursery Association Research Conference. 11-12 August. Atlanta, Georgia. (Abstract; Poster)
45. **Sharma J**, GW Knox, and ML Ishida\*\*. 2005. Root formation on stem cuttings of yellow-flowered cultivars of *Magnolia* is influenced by time-after-budbreak and IBA. American Society for Horticultural Science Conference. 19-22 July. Las Vegas, Nevada. (Abstract; Poster)
46. **Sharma J** and JR Rich. 2005. Assessment of woody ornamental plants for resistance to three *Meloidogyne* species. American Society for Horticultural Science Conference. 19-22 July. Las Vegas, Nevada. (Abstract; Poster)
47. Ishida ML\*\*, GW Knox, and **J Sharma**. 2004. Root formation on stem cuttings of yellow-flowered cultivars of *Magnolia* is influenced by time-after-budbreak and IBA. Southern Regional International Plant Propagators' Society. 24-27 October. Greenville, South Carolina. (Abstract; Poster)
48. **Sharma J**. 2004. Establishment of perennials in hydrophilic polymer-amended soil. Southern Nursery Association Research Conference. 11-12 August. Atlanta, Georgia. (Abstract; Oral)
49. **Sharma J** and WR Graves. 2004. Assessment of *Leitneria floridana* in disjunct native habitats: implications for horticulture and conservation. American Society for Horticultural Science Conference. 17-20 July. Austin, Texas. (Abstract; Oral)
50. **Sharma J** and WR Graves. 2004. Propagation of two native Shrubs, *Rhamnus alnifolia* and *Rhamnus lanceolata*. American Society for Horticultural Science Conference. 17-20 July. Austin, Texas. (Abstract; Oral)
51. **Sharma J**, JR Stewart, and WR Graves. 2003. Propagation of five rarely used shrub species. The Eastern Region International Plant Propagators' Society. 22-25 October. Portland, Maine. (Abstract; Poster)
52. **Sharma J** and WR Graves. 2003. Germination and low-temperature tolerance of the rare *Leitneria floridana* (Leitneriaceae). American Society for Horticultural Science. 3-6 October. Providence, Rhode Island. (Abstract; Oral)
53. **Sharma J**, JW van Sambeek, and CJ Starbuck. 2002. Western prairie fringed orchid: its status, ecology, and in vitro propagation. North American Prairie Conference. 23-27 June. Kirksville, Missouri. Travel Sponsor: North Central Research Station, USDA Forest Service. (Abstract; Oral)
54. **Sharma J** and JW van Sambeek. 2002. A report on recovery efforts for federally threatened *Platanthera praeclara*. Native Orchid Conference. 17-19 May. Greensboro, North Carolina. Travel Sponsor: North Central Research Station, USDA Forest Service. (Abstract; Oral)
55. **Sharma J**, TP Holtsford, JW van Sambeek, and CJ Starbuck. 2001. Genetic diversity in federally threatened *Platanthera praeclara*. 2001: A spatial Odyssey – Searching for a Natural Balance. 28<sup>th</sup> Annual Natural Areas Association Conference. 3-6 October. Cape

- Canaveral, Florida. Program Abstracts: 37. Travel Sponsor: North Central Research Station, USDA Forest Service. (Abstract; Oral)
56. **Sharma J**, LW Zettler, JW van Sambeek, and CJ Starbuck. 2001. Symbiotic seed germination in vitro of federally threatened *Platanthera praeclara* Sheviak and Bowles. Association of Southeastern Biologists Conference. 4-7 April. New Orleans, Louisiana. Southeastern Biology 48(2): 150. (Abstract; Oral)
  57. **Sharma J** and D Schrock. 1999. Response of forbs to grass herbicides, fire, and mowing in mid-successional tallgrass prairies of central Missouri. American Society for Horticultural Science. 24-30 July. Minneapolis, Minnesota. (Abstract; Poster)
  58. **Sharma J**, D Schrock, and S Pallardy. 1998. Hydrophilic polymer amendment in field soil to improve establishment of perennial wildflowers at transplanting. Southern Region American Society for Horticultural Science. 1-4 February. Little Rock, Arkansas. (Abstract; Poster)

#### Technical reports:

1. Fernandez M\*, and **J Sharma**. 2016. Dónde están las orquídeas? Un ejercicio de comparación entre áreas protegidas y no protegidas. June 2016. 12pp. Universidad de Costa Rica, San Pedro, Costa Rica.
2. **Sharma J**. 2015. North American Orchids: an assessment of global status. Orchid Conservation News, the newsletter of the Orchid Specialist Group of the IUCN Species Survival Commission 2015 (3): 1-3.
3. **Sharma J**, PC Wilson, and TH Yeager. 2008. Remediation of runoff: options for container plant nurseries. 8pp. ENH-1088, Institute of Food and Agricultural Sciences, University of Florida.
4. **Sharma J**, AV Ogram, and A Al-Agely. 2007. Mycorrhizae: implications for environmental remediation and resource conservation. 5pp. ENH-1086, Institute of Food and Agricultural Sciences, University of Florida.
5. Funderburk JE, S Diffie, **J Sharma**, A Hodges, and LS Osborne. 2007. Thrips of ornamentals in the southeastern US. Gainesville, Florida: University of Florida, EDIS. 6 pp. ENY-845, Institute of Food and Agricultural Sciences, University of Florida.
6. **Sharma J**, DZ Haman, and RC Beeson. 2006. Water-conserving and runoff-reducing production systems for containerized plants: Some examples of recently developed technologies. 4 pp. ENH-1048, Institute of Food and Agricultural Sciences, University of Florida.
7. **Sharma J**. 2004. Wetland/Retention Basin. University of Florida Cooperative Extension Service Report. 2 pp. NFREC Extension Report # 2004-7.

#### Other publications:

1. **Sharma J**. 2015. North American Orchids: an assessment of global status. Orchid Conservation News, the newsletter of the Orchid Specialist Group of the IUCN Species Survival Commission 2015 (3): 1-3.
2. Bartlett M\*<sup>1</sup>, **J Sharma**, and H Rankou<sup>2</sup>. *The IUCN Red List of Threatened Species* 2014: e.T13254117A13254142. <https://dx.doi.org/10.2305/IUCN.UK.2014-1.RLTS.T13254117A13254142.en>.

3. H Rankou and **J Sharma**. 2014. *Cypripedium acaule*. *The IUCN Red List of Threatened Species* 2014: e.T43315493A43327599. <https://dx.doi.org/10.2305/IUCN.UK.2014-1.RLTS.T43315493A43327599.en>.
4. Smith M, G Bonito, **J Sharma**, J Long, B Davis-Long, and T Brenneman. 2012. Pecan truffles (*Tuber lyonii*): what we know and what we need to know. *Georgia Pecan Magazine*, Spring: 52-59.
5. **Sharma J**, B Trela, S Wang\*, M Smith, and G Bonito. 2012. Pecan truffle (*Tuber lyonii*) in Texas. *Pecan South*, December: 16-24.
6. Goedeke T, **J Sharma**, P Delphey, and K Marshall-Mattson\*. 2008. *Platanthera praeclara*. *The IUCN Red List of Threatened Species* 2008: e.T132834A3464336. <https://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T132834A3464336.en>.
7. Marshall-Mattson K\* and **J Sharma**. 2006. An annotated bibliography of all literature and reports on *Platanthera praeclara*. Document of the US Fish and Wildlife Office, Minneapolis, Minnesota.
8. Knox GW and **J Sharma**. 2006. Propagation protocols for yellow-flowered cultivars of magnolia. Dearing, GA: The Center for Applied Nursery Research. 2 pp. <http://www.canr.org/Knox%20MagnoliaRooting%20F-05.pdf>
9. **Sharma J** and MHS. Light. 2006. *Platanthera praeclara* Sheviak and Bowles, Flagship Taxa, Orchid Specialist Group, North American Region. [http://www.orchidconservation.org/osg/PubArt/NARFS-Pthra\\_praeclara-L-En.pdf](http://www.orchidconservation.org/osg/PubArt/NARFS-Pthra_praeclara-L-En.pdf)
10. **Sharma J** and MJ Cochran. 1993. An annotated bibliography of select literature on management of agricultural production and water quality. SP-2193. Department of Agricultural Economics and Rural Sociology, University of Arkansas, Fayetteville.

#### Newsletter articles:

*In North Florida Research and Education Center Newsletter:*

1. **Sharma J**. 2008. Why worry about runoff at container plant nurseries: Part II. 18 February.
2. **Sharma J**. 2007. Why worry about runoff at container plant nurseries: Part I. 9(13). 10 September.
3. **Sharma J**. 2006. Rain gardens. 8(8). 10 April.
4. **Sharma J**. 2005. Wetland plants: Part II. 7(14). 5 July.
5. **Sharma J**. 2005. Got water? 7(6). 14 March.
6. **Sharma J**. 2004. Several ornamental shrubs resistant to root-knot nematodes. 6(23). 8 November.
7. **Sharma J**. 2004. Mitigation of contaminants in runoff from plant nurseries. 6(15). 19 July.
8. **Sharma J**. 2004. Sudden oak death (*Phytophthora ramorum*) in Florida. 6(8). 12 April.
9. **Sharma J**. 2004. A new resource for the green industry. 6(7). 29 March.

#### Media Releases:

1. **Sharma J**. 2014. Plants and Fungi. Fox News. 11 November 2014.
2. **Sharma J**. 2005. A golden pond. Tallahassee Democrat. 23 June 2005.
3. **Sharma J**. 2004 and 2005. NFREC wetland project. PBS video and audio release.
4. **Sharma J**. 2001. *Platanthera praeclara*. Television news report in Fargo, North Dakota.

### **Electronic Media:**

1. Jacobson K and **J Sharma**. 2012. YouTube video on pecan truffle project. 20 October. <http://www.youtube.com/watch?v=CE1rrj-G1Wc>

### **PRESENTATIONS AND LECTURES**

#### **Invited Presentations:**

**This list is exclusive of the invited presentations listed under 'Abstracts' or those listed under 'Invited Class Lectures' or 'Workshops / Colloquia.'**

1. **Sharma J**. 2021. Keynote Speech. Student Orientation. Texas Tech University Costa Rica.
2. **Sharma J**. 2019. Naval Base Point Loma rare plant research. United States Fish and Wildlife Service Pacific Southwest Region (R8). 06 May. Carlsbad, California.
3. **Sharma J**, and E Terhonen<sup>\*\*</sup>. 2016. Mycorrhizal strategies in the Orchidaceae. School of Biology, Universidad de Costa Rica. 22 June. San Jose, Costa Rica.
4. **Sharma J**. 2016. Naval Base Point Loma rare plant research. United States Fish and Wildlife Service Pacific Southwest Region (R8). 12 September. Carlsbad, California.
5. **Sharma J**, J Kaur, L Markovchick. 2016. Sensitive plant ecology in the California Floristic Province. BioBlitz at Cabrillo National Monument. National Park Service, USDoI. 21-22 May. San Diego, California.
6. **Sharma J**. 2014. Overview of orchid research at Texas Tech University. Smithsonian Environmental Research Center. 25-27 March. Edgewater, Maryland.
7. **Sharma J**, M Pandey<sup>\*\*</sup>, and DL Taylor. 2013. Orchid conservation research at Texas Tech University. Native Orchid Conference, Inc. 11<sup>th</sup> Annual Meeting. 9 - 12 June. Oroville, California.
8. **Sharma J**. 2012. Orchids. South Plains Gardening Association. 26 July. Lubbock, Texas.
9. **Sharma J** and S Wang<sup>\*</sup>. 2012. Pecan truffles in Texas. Texas A&M AgriLife Comanche County Extension Meet. 19 July. Comanche, Texas.
10. **Sharma J** and S Wang<sup>\*</sup>. 2012. Pecan orchards: fertile ground for co-cropping with truffles? Texas Pecan Growers Association 91<sup>st</sup> Annual Conference and Trade Show. 18 July. San Marcos TX.
11. **Sharma J**. 2010. Native orchid conservation. Lubbock Arboretum. 14 August. Lubbock, Texas.
12. **Sharma J**. 2010. Native plant conservation. Lubbock Arboretum. 10 April. Lubbock, Texas.
13. **Sharma J**. 2009. Orchid conservation in Texas. Texas Plant Conservation Alliance. 9<sup>th</sup> Texas Plant Conservation Conference. 18 September. Austin, Texas.
14. **Sharma J** and P Delphey. 2009. IUCN Red List and orchid conservation: *Platanthera praeclara*, a case study. Native Orchid Conference. 11-17 June. Green Bay, Wisconsin.
15. **Sharma J**. 2009. Concepts and implications of genetics studies. Western Prairie Fringed Orchid Recovery Team Meeting. 19 March. Des Moines, Iowa.
16. **Sharma J**. 2008. North American terrestrial orchids. Tampa Bay Orchid Society. 17 January. Tampa, Florida.

17. **Sharma J** and ML Ishida \*\*. 2007. Runoff remediation at plant nurseries. USDA Horticultural Research Laboratory. 25 October. Ft. Pierce, Florida.
18. **Sharma J.** 2007. North American plants for wet areas. NFREC Fall Field Day. 28 September. Quincy, Florida.
19. **Sharma J.** 2007. Soil microbes: benefits and detriments. Master Gardner Training. 28 August. Quincy, Florida.
20. **Sharma J.** 2006. Nutrient deficiencies in container grown plants. Georgia-Florida Green Industries Update. 19 October. Quincy, Florida.
21. **Sharma J.** 2006. Rain Gardens: function and design. Glatting Jackson Kercher, Anglin Lopez Rinehart, Inc. 23 February. Orlando, Florida.
22. **Sharma J.** 2006. Mycorrhizae. Green Team Meeting. 13 January. Lecanto, Florida.
23. **Sharma J.** 2005. Native plants for rain gardens and constructed wetlands. Retention Basin In-Service Training. 3 November, 2005. Orlando, Florida.
24. **Sharma J.** 2005. Rain gardens: why, where, and how. Master Gardener Convention. 25 October. Gainesville, Florida.
25. **Sharma J.** 2005. Nursery runoff management. Georgia-Florida Green Industries Update. 11 October. Cairo, Georgia.
26. **Sharma J.** 2005. Mycorrhizae: implications for remediation and conservation. Fungus Biology In-Service Training. 1 September. Quincy, Florida.
27. **Sharma J.** 2005. Aquatic weed management and native plants. Aquatic Weed Control Workshop. 6 May. Quincy, Florida.
28. **Sharma J** and JR Rich. 2005. Ornamentals resistant to root-knot nematodes. Northeast Florida Horticultural Trade Show. 18-19 March. Florida Nursery, Growers, and Landscape Association, Jacksonville, Florida.
29. **Sharma J.** 2005. Plants for wet areas. Magnolia Field Day, UF-NFREC. 10 March. Quincy, Florida.
30. **Sharma J** and K Kuhl. 2004. Managing an invaluable natural resource: Water. Tri-state sHort Course, University of Florida-Milton. 20 August. Milton, Florida. (Oral)
31. **Sharma J.** 2004. Orchids and their fungi: observation and conservation. Tallahassee Orchid Society. 6 May. Tallahassee, Florida.
32. **Sharma J.** 2002. Mycorrhizal ecology and population genetics of *Platanthera praeclara*. Department of Horticulture Seminar. Iowa State University. Ames, Iowa.
33. **Sharma J** and CJ Starbuck. 2001. Soil amendment and mulching of forsythia with fresh and aged oak sawdust. Plant Science Unit Seminar. 21 March. University of Missouri-Columbia.
34. **Sharma J.** 2000. Orchids demystified: an introduction to the Orchidaceae. Department of Horticulture Seminar. 19 April. University of Missouri-Columbia.

#### **Invited Class Lectures:**

- |             |   |
|-------------|---|
| Summer 2012 | <b>Lecturer</b> , School of Biology, University of Costa Rica, San Jose, Costa Rica<br>Mycorrhizal Symbiosis Graduate Course; Students – 10; no. lectures – 1             |
| Fall 2011   | <b>Lecturer</b> , Department of Biology, Texas Tech University, Lubbock, Texas<br>BIOL 4301 Section 071 (Ecological Strategies of Plants); Students – 7; no. lectures – 1 |



- Fall 2010      **Lecturer**, Department of Biology, Texas Tech University, Lubbock, Texas  
BIOL 4301 Section 071 (Ecological Strategies of Plants); Students – 6; no.  
lectures – 1
- Fall 2009      **Lecturer**, Department of Biology, Texas Tech University, Lubbock, Texas  
BIOL 4301 Section 071 (Ecological Strategies of Plants); Students – 7; no.  
lectures – 1
- Summer 2008   **Instructor**, Soil and Water Science, UF, Gainesville, Florida.  
Mycorrhizal Short Course (a 5-day special training course); Molecular  
techniques in mycorrhizal studies (my contribution; 2 days); Students – 10
- Fall 2007      **Lecturer**, Plant Molecular and Cellular Biology, UF, Gainesville, Florida.  
PCB 7922 (Symbioses Journal Club); Advanced Graduate Student Readings;  
Students – 11; no. of lectures – 1
- Fall 2007      **Lecturer**, Environmental Horticulture, UF, Gainesville, Florida.  
ORH 1030 (Plants, Gardening, and You); Students – 85; no. of lectures – 1
- Fall 2004      **Lecturer**, School of Natural Resources and Environment, UF, Gainesville,  
Florida. Graduate Seminar Series; Students – 25; no. of lectures – 1
- Fall 2000      **Lecturer**, Columbia College, Columbia, Missouri.  
Sociology 412 (Class, Status, and Power in Societies); Students – 26; no. of  
lectures – 1
- Fall  
1999          **Lecturer**, Plant Science Unit, UMC, Columbia, Missouri.  
Plant Science 234 (Plant Environments); Students - ~ 20; no. of lectures – 1

### **Workshops / Colloquia:**

1. Sharma J. J Kaur. 2021. Rare plant management. Naval Base Point Loma. San Diego, CA.
2. Sharma J. A Ollerana. 2020. Orchid biology and conservation. Rincon Ecologico Cultural Terraba. Short course / workshop for the an indigenous community. 17-18 January. Terraba, Costa Rica.
3. **Sharma J.** 2019. Restoration of longleaf pine savanna for orchid conservation. Sponsored by Big Thicket National Preserve and Houston Zoo. Led 15+ volunteers to train in orchid habitat restoration techniques. 14-16 November. Warren, Texas.
4. **Sharma J.** 2019. Wetland restoration at Kirtland Air Force Base. 24-26 July. Albuquerque, NM. Led ~12 middle school children to plant native vegetation at a wetland restoration site in Albuquerque, New Mexico.
5. **Sharma J.** 2019. Wetland restoration at Kirtland Air Force Base. 23-24 November. Albuquerque, NM. Led 7 volunteers from Pueblo Isleta (Native Indian Pueblo) in wetland restoration techniques.

6. **Sharma J.** 2018. Developing conservation banks for orchid seeds and mycorrhizae: concept and methods. Botanical Research Institute of Texas (BRIT). 19 September. Fort Worth, Texas.
7. **Sharma J.** 2017. Seed biology and germination. Short Course / Workshop. NSF funded workshop at Universidad de Costa Rica. 18-20 July. San Pedro, Costa Rica.
8. Fernandez M\*, **Sharma J**, Taylor DL, Taylor AD, Shirazinia M, Bogarin D, Pupulin F. 2016. NSF funded public outreach programs at Lankester Botanical Garden and Tapanti National Park, Costa Rica.
9. Taylor DL and **Sharma J.** 2016. Orchid mycorrhizae workshop. Universidad de Costa Rica. 23-25 July. San Jose, Costa Rica.
10. Ulmer J, **J Sharma**, C Meyers, S Trojan, S Kahl, R Sheikh, and L Mills. 2016. Conference for Developing a Regional Agricultural Undergraduate Research Consortium. 23-24 March. Lubbock, Texas.
11. Poff KE\*, **J Sharma**, M Richards, and J Liggio. 2015. In vitro production and transplanting rare plants in SE Texas. Big Thicket National Preserve. 15 - 17 March. Warren, Texas.
12. Taylor AD, Taylor DL, and **J Sharma.** 2015. Biostatistics Workshop. Universidad de Costa Rica. 23-25 July. San Jose, Costa Rica.
13. **Sharma J**, LJ Grauke, and C Wise. 2014. Truffle location in pecan orchards. USDA Pecan Breeding Station. 22 November. Somerville, Texas.
14. Poff, KE\*, **Sharma J**, M Richards, and J Liggio. 2014. In vitro production and transplanting rare orchids in SE Texas. Big Thicket National Preserve. 23 November. Warren, TX.
15. Misra S, **J Sharma**, J Ulmer, S Trojan, SM Rahman, and L Mills. 2013. Institutionalizing undergraduate research, scholarship, and creative activity. Council on Undergraduate Research Symposium: 12-13 September. Texas Tech University. Lubbock, Texas.
16. **Sharma J** and M Richards. 2012. In vitro production and in situ transplanting of rare orchids in SE Texas. Watson Rare Plant Reserve. 23 November. Warren, Texas.
17. **Sharma J**, J Owen, and J Altland. 2010. The role of horticulture in managing plant invasiveness and reducing new invasive introductions in the U.S. American Society for Horticultural Science Nursery Working Group. 4 August. Palm Desert, California.
18. Co-sponsor. 2010. Screening protocols to assess and predict invasiveness in plants. American Society for Horticultural Science Invasive Plant Research Working Group Workshop. Palm Desert, California.
19. Co-sponsor. 2010. Water management and plant performance in a changing climate. American Society for Horticultural Science Water Utilization and Management Working Group Workshop. Palm Desert, California.
20. Gu M, G Zinati, **J Sharma**, and J Albano. 2009. Efficient use of alternative water and traditional irrigation sources in horticulture. American Society for Horticultural Science Water Utilization and Management Working Group Workshop. St. Louis, Missouri.
21. Zinati G, **J Sharma**, and H Kratsch. 2009. Managing and thriving in tough times, when every dime counts! American Society for Horticultural Science Water Utilization and Management Working Group Workshop. St. Louis, Missouri.
22. **Sharma J**, W Schall, J Poponoe, and A Bolques. 2007. Fungus biology. Extension In-service Training. West Palm Beach, Florida.

23. Langeland K, **J Sharma**, and C Reinhardt Adams. 2007. Aquatic systems, IFAS Extension Symposium, Gainesville, Florida.
24. Albano J, **J Sharma**, G Zinati, and G Niu. 2007. Water conservation for nurseries. American Society for Horticultural Science Water Utilization and Management Working Group Workshop. Scottsdale, Arizona.
25. **Sharma J**. 2006. Western Education/Extension and Research Activities (WERA) - 058 National Meeting. Quincy and Gainesville, Florida.
26. **Sharma J**, T Momol, and J Ruter. 2005. Fungus biology. Extension In-service Training. North Florida Research and Education Center. Quincy, Florida.
27. **Sharma J**, J Popenoe, J Hitchcock, B Larson, and J Bradshaw. 2005. Design, function, and management of retention basins, constructed wetlands, and rain gardens. Orlando, Florida.
28. **Sharma J** and C Zelmer. 2005. Isolation of fungi from orchid roots. Native Orchid Conference. Winnipeg, Manitoba, Canada.
29. **Sharma J**. 2004-2008. Wetland retention basin demonstration project. North Florida Research and Education Center. Quincy, Florida.
30. **Sharma J**. 1999. Horticultural use of native perennials. Prairie Forks Conservation Area. Williamsburg, Missouri.

## **POSTDOCTORAL RESEARCH ASSOCIATES**

### **COMPLETED: 3**

Dr. Madhav Pandey  
Dr. Eeva Terhonen  
Dr. Christoffer Harder

### **IN PROGRESS: 2**

Dr. Jaspreet Kaur  
Dr. Malachi Williams

## **GRADUATE STUDENT COMMITTEES**

### **COMPLETED: 24**

#### **Chaired:**

#### **M.S.**

1. **Kirsten Poff**, Plant and Soil Science, Texas Tech University  
Completed - August 2016  
Title: *Platanthera chapmanii*: culture, population augmentation, and mycorrhizal associations
2. **Niraj Rayamajhi**, Plant and Soil Science, Texas Tech University  
Completed - August 2015  
Title: Conservation genetics of rare and endemic cacti.
3. **Pablo Tovar**, Plant and Soil Science, Texas Tech University  
Completed - December 2015  
Title: Spatial and temporal variation in mycorrhizal associations and soil fungal communities of a threatened orchid.
4. **W. Marshall Hamilton**, Plant and Soil Science, Texas Tech University  
Completed - December 2014  
Title: Symbiosis of *Tuber lyonii* with *Carya illinoensis*.
5. **Shi Wang**, Plant and Soil Science, Texas Tech University  
Completed - August 2013  
Title: Molecular identification and cultural conditions for *Tuber lyonii*.
6. **Reghuraj Nair**, Plant and Soil Science, Texas Tech University  
Completed - December 2012  
Title: Microsatellite (nSSR) identification for population genetics of *Cypripedium kentuckiense* and *Pogonia ophioglossoides*.
7. **Bhuvana Govindarajan**, Interdisciplinary Ecology, University of Florida  
Completed - August 2008  
Title: Nitrogen dynamics in a constructed wetland receiving plant nursery runoff in southeastern United States.
8. **Kristen Marshall Mattson**, Interdisciplinary Ecology, University of Florida  
Completed - December 2006.  
Title: Terrestrial orchids and ecosystem processes in the longleaf pine ecosystem.

### **Distance M.S.**

1. **Sherry Smith**, Plant and Soil Science, Texas Tech University  
Completed - December 2015  
Specialization: Germination and growth of invasive species in Texas
2. **Kelley Rawlsky**, Plant and Soil Science, Texas Tech University  
Completed - August 2015  
Specialization: Sustainable vegetable production
3. **Tricia Cox**, Plant and Soil Science, Texas Tech University  
Completed - December 2014  
Specialization: Online course development and teaching for university students
4. **Natalie Dhanoolal**, Plant and Soil Science, Texas Tech University  
Completed - December 2014  
Specialization: Outdoor horticultural learning environments for elementary school students

### **Ph.D.**

1. **Jaspreet Kaur**, Plant and Soil Science, Texas Tech University  
Completed – December 2018  
Title: Reproductive and mycorrhizal ecology of rare taxa of the California Floristic Province.
2. **Sujit Shah (Co-Chair)**, Central Department of Botany, Tribhuvan University, Nepal  
Completed – August 2020  
Title: Isolation and identification of endophytic fungi from selected orchid species and their role in plant growth and biological activity.

### **Committee member of:**

#### **M.S.**

1. **Jarrad Davis**, Natural Resources Management, Texas Tech University  
Completed - December 2013  
Title: Techniques for Restoration of Shin-oak (*Quercus havardii*).
2. **Lindsey Thiessen**, Plant and Soil Science, Texas Tech University  
Completed - May 2012  
Title: Improving upon the management of soil-borne diseases of peanut in west Texas.
3. **Bryan Peterson**, Horticulture, Iowa State University  
Completed - May 2009  
Title: Phenotypic diversity, reproductive dynamics, and optimization of root-zone pH for nursery production of *Dirca palustris*.
4. **Trey Fletcher**, Interdisciplinary Ecology, University of Florida  
Completed - December 2008  
Title: Evaluating ornamental specialty cut production using a sustainable agroforestry approach.
5. **Kari Ruder**, Horticultural Science, University of Florida  
Completed - May 2006  
Title: Identification of Propagation Protocol and Cultivation Requirements for *Dalea feayi* (Chapman) Barneby (Feay's Prairie Clover).

#### **Ph.D.**

1. **Kelsey Cook**, Department of Biology, University of New Mexico  
Graduation – December 2020

- Title - Epiphytic fungal and bryophyte communities in a high montane rainforest
2. **Amede Rubio**, Plant and Soil Science, Texas Tech University  
Completed – August 2020  
Title: Studies involving invasive Giant Reed (*Arundo donax*) and Ecological Restoration for Insect Pollinators in the Lower Rio Grande.
  3. **Nick Sanford**, Plant and Soil Science, Texas Tech University  
Completed - May 2015  
Title: Novel source-to-sink mechanisms and hydrogen peroxide signaling in *Gossypium* spp.
  4. **Ratan Chopra**, Plant and Soil Science, Texas Tech University  
Completed - December 2014  
Title: Transcriptome Sequencing on array of twenty two peanut accessions for SNP identification and development of linkage map for A genome population using SNPs selected from the array of accessions.
  5. **Paulo Ricardo Almeida**, Universidade Estadual de Feira de Santana (UEFS), Campo Limpo, Feira de Santana, Bahia, Brazil.  
Completed - May 2013  
Title: Mycorrhizal fungi of the critically endangered Brazilian orchids *Cattleya labiata* and *C. warneri*.

#### IN PROGRESS:

##### Chair:

##### M.S.

1. **Kevin Allen**, Plant and Soil Science, Texas Tech University  
Expected Graduation – TBD  
Title: as Symbiotic in vitro culture of immature and mature seeds of three congeneric, temperate, terrestrial orchids
2. **Sharandeep Singh Chahal**, Plant and Soil Science, Texas Tech University  
Expected Graduation – TBD  
Title: Integrated mapping of West Gulf Coastal Plain Forested Seep (Southern Type) Communities (WGCPFS-ST)
3. **Logomalu Papalii**, Plant and Soil Science, Texas Tech University  
Expected Graduation – TBD  
Specialization - TBD
4. **Azita Amini**, Plant and Soil Science, Texas Tech University  
Expected Graduation – TBD  
Specialization: TBD
5. **Flynn Fedorczak**, Plant and Soil Science, Texas Tech University  
Expected Graduation - TBD  
Specialization: TBD

##### Ph.D.

1. **J. Kris Petterson**, Plant and Soil Science, Texas Tech University  
Expected Graduation – May 2022  
Title: Ecology of orchids
2. **Shan Wong**, Plant and Soil Science, Texas Tech University  
Expected Graduation – May 2023

Title: Ecology of co-existing *Vanilla* species in Central America.

3. **Melania Fernandez**, Plant and Soil Science, Texas Tech University  
Expected Graduation – May 2023

Title: Do mycorrhizal associations explain plant and fungal community composition in tropical epiphytic communities?

**Committee member of:**

**Ph.D.**

1. Aqeela Sehrish, Plant and Soil Science, Texas Tech University  
Expected Graduation – TBD  
Title – TBD
2. Billi Jean Petermann, Plant and Soil Science, Texas Tech University  
Expected Graduation – TBD  
Title – TBD

**UNDERGRADUATE ADVISING**

2021: Thirty (30) students  
2020: Fall - 29 students, Spring - 21  
2019: Fall - 20, Spring - 18  
2018: Fall - 18, Spring – 16  
2017: Fall - 14, Spring - 16  
2016: Fall - 19, Spring - 21  
2015: Fall - 25, Spring - 22 students  
2014 - Thirty-three (33) students  
2013 - Twenty-nine (29) students  
2012 - Thirty-two (32) students  
2011 - Twenty-seven (27) students  
2010 - Eighteen (18) students

**Undergraduate Research Fellows:**

1. \*<sup>†</sup>Vanessa de la Guardia, Zamorano University. 2018
2. \*<sup>†</sup>Dario Rueda Kunz, Zamorano University. 2017
3. Melissa Dickerson, Texas Tech University. 2017-2018.
4. Ryley Andersen, Texas Tech University. 2015 - 2017
5. Bridgett Pickman, Texas Tech University. 2016 – 2017; NSF REU student
6. <sup>†</sup>Shan Wong, Florida International University. 2016; NSF CloudNet student
7. <sup>†</sup>Andrea Orellana, Universidad de Costa Rica. 2015.
8. <sup>†</sup>Bianca Walker, Texas Tech University. 2014-2015.
9. \*Andrew Moses, Texas Tech University. 2013-2014.
10. Chelsey Smith, Texas Tech University. 2013.
11. Clinton Neil, Texas Tech University. 2012.
12. \*Dustin Sewell, Texas Tech University. 2012.
13. Megan Kirkpatrick, Texas Tech University. 2012.
14. Amy Griggs, Texas Tech University. 2012.
15. \*Scott Weeks, Texas Tech University. 2010-2012.

16. <sup>†</sup>Omar Roman, Texas Tech University. 2011.
17. James Dipiazza, Texas Tech University. 2011.
18. <sup>\*</sup>Rebecca Riddle, North Florida Research and Education Center. 2008-2009.

<sup>†</sup> Underrepresented minority students

<sup>\*</sup> Students who developed abstracts and poster presentations for research conferences.



## **TEACHING RESPONSIBILITIES**

1. **PSS 6318** – Research Methods in Plant Science. Graduate level course.  
Semesters Taught – **Fall 2018, Fall 2021**
2. **PSS 6315** - Mycorrhizal Symbiosis. Graduate level course taught as titled sections of PSS 6001 prior to official approval by TTU. 100% responsibility.  
Semesters Taught - Fall 2012, Fall 2013, **Spring 2017, Fall 2017, Spring 2018, Fall 2019.**
3. **PSS 5001 (Distance)** - Guided research for graduate students who are not on campus. Same description as for PSS 4001 but at a graduate level. These projects serve as defense projects for Distance M.S. students. 100% responsibility.  
Semesters Taught - Spring 2014, Summer 2014, Fall 2014, **Spring 2015, Summer 2015, Fall 2015.**
4. **PSS 4312** - Environmental Ethic, Biodiversity, and Permaculture. **Newly developed** Senior level course. 100% responsibility.  
Semesters Taught –**Fall 2020.**
5. **PSS 4001 (On-campus and Distance)** - Guided research for undergraduate students. Involves working with students to design and conduct a research project complete with outline, proposal, experimental design, result analyses, and final report writing. 100% responsibility.  
Semesters Taught - Spring 2011, Fall 2011, Spring 2012, Summer 2012, Spring 2013, Summer 2014, Fall 2014, **Spring 2015, Fall 2015, Spring 2016, Spring 2017, Fall 2018, Summer 2019, Fall 2019, Summer 2020.**
6. **PSS 1411 003** - Principles of Horticulture. Core Life and Physical Sciences Course. Enrollment ranges from 70 to 150 students per long semester, and between 20 and 25 in summer. 100% responsibility.  
Semesters Taught - 2009, 2010\*, 2011, 2012, 2013, 2014, **2015, 2016, 2017** - Each Fall and Spring semester and alternate Summer semester. \*Taught two sections in Fall 2010.
7. **PSS 1411 508** - Principles of Horticulture Laboratory. 100% responsibility.  
Semesters Taught - Fall 2009.

## SUMMARY OF TEACHING EVALUATIONS<sup>Z</sup>

(<sup>Z</sup> Means are listed for structured courses for which the Department of Plant and Soil Science conducted formal evaluations; Scoring is on a scale of 1 to 5, where 5 is highest)

Term/Class	Number of Students	Course Objectives (Question #1) Mean	Instructor Overall (Question #2) Mean	Course/Valuable Learning Experience (Question #3) Mean
<b>Fall 2015</b>				
PSS 1411 003	108	4.61	4.54	4.44
PSS 4000 004	1			
PSS 6000 016	1			
PSS 7000 015	4			
<b>Summer 2015</b>				
PSS 6000 016	1			
PSS 7000 016	3			
<b>Spring 2015</b>				
PSS 1411 003	125	3.94	3.73	3.83
PSS 5000 D01	1			
PSS 6000 015	1			
PSS 7000 015	3			
<b>Fall 2016</b>				
PSS 1411 003	131	4.39	3.98	3.92
PSS 7000 015	1			
<b>Summer 2016</b>				
PSS 6000 016	1			
PSS 7000 016	1			
<b>Spring 2016</b>				
PSS 1411 003	96	4.54	4.52	4.27
PSS 4001 D03	1			
PSS 6000 017	1			
PSS 7000 017	3			
<b>Fall 2017</b>				
PSS 1411 003	133	4.55	4.29	4.29
PSS 6001 003	1			
PSS 6001 D02	1			
PSS 7000 017	3			
<b>Summer 2017</b>				
PSS 7000 016	1			
<b>Spring 2017</b>				
PSS 1411 003	111	4.25	3.87	3.66
PSS 4001 D03	1			
PSS 6001 003	1			
PSS 6001 004	1			
PSS 7000 016	2			
<b>Fall 2018</b>				
PSS 4001 D01	1			
PSS 7000 016	3			
PSS 8000 016	1			
<b>Summer 2018</b>				
PSS 7000 117	1			

PSS 8000 113	1				
<b>Spring 2018</b>					
PSS 7000 017	2				
PSS 8000 017	1				
<b>Fall 2019</b>					
PSS 4000 008	1				
PSS 6001 003	4	5.0	5.0	5.0	
PSS 8000 018	1				
<b>Summer 2019</b>					
PSS 4000 218	1				
PSS 7000 116	2				
PSS 8000 116	1				
<b>Spring 2019</b>					
PSS 7000 016	3				
PSS 8000 017	1				
<b>Fall 2020</b>					
PSS 4312	30				
PSS 7000	2				
PSS 8000	1				
<b>Summer 2020</b>					
PSS 4000 108	1				
PSS 7000 117	2				
PSS 8000 117	1				
<b>Spring 2020</b>					
PSS 7000 018	2				
PSS 8000 019	1				
<b>Fall 2021</b>					
PSS 6318	16	4.1	4.4	4.2	
PSS 7000	2				
PSS 8000	1				
<b>Summer 2021</b>					
PSS 7000	3				
PSS 8000	1				
<b>Spring 2021</b>					
PSS 7000	3				
PSS 8000	1				
<b>Fall 2014</b>					
PSS 1411 003	150	na	na	na	
PSS 4000 004	1				
PSS 4001 D01	1				
PSS 5001 D01	1				
PSS 6000 010	2				
PSS 7000 013	5				
<b>Summer 2014</b>					
PSS 4001 014	1				
PSS 5001 D01	2				
PSS 7000 013, 041	4				
<b>Spring 2014</b>					
PSS 1411 003	112	4.21	3.87	3.75	

PSS 5000 D03	1			
PSS 5001 D02	2			
PSS 7000 013	3			
<b>Fall 2013</b>				
PSS 1411 003	124	4.27	4.29	4.11
PSS 7000 013	3			
<b>Summer 2013</b>				
PSS 4000 006	1			
PSS 7000 013,041	3			
<b>Spring 2013</b>				
PSS 1411 003	83	4.35	4.42	4.28
PSS 4000 D03	1			
PSS 4001 D03	1			
PSS 7000 013	3			
<b>Fall 2012</b>				
PSS 1411 003	104	4.72	4.69	4.55
PSS 6001 014	7	4.71	4.86	4.86
PSS 7000 014	1			
<b>Summer 2012</b>				
PSS 1411 001	22	4.40	4.80	4.80
PSS 1411 501	22	4.75	4.88	4.75
PSS 4000 016	1			
PSS 4001 014	2			
<b>Spring 2012</b>				
PSS 1411 003	78	4.36	4.31	4.30
PSS 4001 017	2			
PSS 7000 018	2			
<b>Fall 2011</b> (*PSS did not conduct evaluations for this graduate course)				
PSS 1411 003	95	4.13	4.11	3.92
PSS 4001 017	1			
PSS 6001 017	5	*	*	*
PSS 7000 018	1			
<b>Spring 2011</b>				
PSS 1411 003	128	na	na	na
PSS 4001 017	1			
PSS 7000 017	2			
<b>Fall 2010</b>				
PSS 1411 001	108	4.43	4.44	4.15
PSS 1411 002	112	4.40	4.23	4.15
PSS 7000 017	2			
<b>Summer 2010</b> (*PSS did not conduct evaluations for a Summer course)				
PSS 1411 001	15	*	*	*
<b>Spring 2010</b>				
PSS 1411 003	70	4.23	4.00	3.84
<b>Fall 2009</b>				
PSS 1411 003	77	4.63	4.80	4.75
PSS 1411 508	26	4.38	4.38	4.08

## **GRANTS AND AWARDS**

**Total Career: \$3,962,623.00**

**As PI - \$3,343,672.00**

As Co-PI - \$618,951.00

**Total at Texas Tech University (TTU): \$3,386,862.00**

**Total since 2015 - \$1,168,839.00; JS Share – 94%**

As PI (since 2015) - \$1,099,123.00; JS Share – 99%

As Co-PI (since 2015) - \$69,716.00; JS Share – 21%

### **Funded:**

#### **2021 (Also see cash / gifts)**

1. **PI.** Sharma J. Sensitive plant research and implementation.  
Department of Defense Office of Naval Research. 2021 - 2024, \$166,203 (\$478,988 approved for 6 years in 2018) (JS portion - 100%)
2. **PI.** Sharma J. Integrated orchid conservation.  
American Orchid Society. 2021-2023, \$1,420. (JS portion – 100%)
3. **Co-PI.** \*Chahal, S and J Sharma. Ann Miller Gonzalez Research Grant (Native Plant Society of Texas). 2021-2023, \$2,500. (JS portion – 100%)

#### **2020 (Also see cash / gifts)**

4. **PI.** Sharma J. Sensitive plant research and implementation.  
Department of Defense Office of Naval Research. 2020 - 2023, \$166,086 (\$478,988 approved for 6 years in 2018) (JS portion - 100%)
5. **PI.** Sharma J. Integrated orchid conservation.  
American Orchid Society. 2020-2022, \$2,990. (JS portion – 100%)
6. **Co-PI.** Slaughter L, J Sharma, K Lewis. Exploration and discovery of the cotton microbiome in the Texas Southern High Plains.  
Cotton Incorporated. 2020. \$20,000. (JS portion – 33%)

#### **2019 (Also see cash / gifts)**

1. **Co-PI.** Slaughter L, J Sharma, K Lewis. Exploration and discovery of the cotton microbiome in the Texas Southern High Plains.  
Cotton Incorporated. 2019. \$20,000. (JS portion – 33%)

#### **(Student Grants; not included in funding calculations):**

2. **Co-PI.** \*Wong S and J Sharma. 2019-2020. Mycorrhizal diversity of *Vanilla hartii* and co-occurring Vanilla species in Costa Rica. World Orchid Conference.  
Project Seeding: Orchid Conservation Initiative. \$2,500.

3. **Co-PI.** \*Kaur J and J Sharma. 2019-2020. Improving the population health of a rare orchid species *Platanthera chapmanii*. World Orchid Conference Project Seeding: Orchid Conservation Initiative. \$2,500.

## 2018

1. **PI.** Sharma J. Sensitive plant research and implementation. Department of Defense Office of Naval Research. 2018 - 2024, \$146,700 (\$478,988 approved for 6 years in 2018) (JS portion - 100%)
2. **PI.** Sharma J. Integrated mapping of West Gulf Coastal Plain Forested Seep (Southern Type; WGCP-FS-ST) communities. US Fish and Wildlife Service / Texas Parks and Wildlife Department. 2019 - 2024. \$133,924 (JS portion – 100%)
3. **PI.** Sharma J. Do widely distributed plants utilize similar mycorrhizal associates across continents? TTU Division of International Research and Development. 2018. \$2,000 (JS portion – 100%)
4. **PI.** Sharma J. Wetland restoration in New Mexico. Department of Defense US Army Corps of Engineers. 2018 - 2019. \$30,383. (Approved for multiple years of additional funding in 2015) (JS portion - 100%)
5. **Co-PI.** Slaughter L, J Sharma, K Lewis. Exploration and discovery of the cotton microbiome in the Texas Southern High Plains. Cotton Incorporated. 2018 - 2020. \$20,000. (JS portion – 33%)

## 2017

1. **PI.** Sharma J. Sensitive plant research and implementation. Department of Defense Office of Naval Research. 2017-2019. \$180,659 (\$532,043 approved for 3 years in 2015) (JS portion - 100%)
2. **PI.** Sharma J. REU supplement for ‘Testing a microbial-association-distribution hypothesis to explain spatial distributions and species co-existence in communities of epiphytic plants.’ National Science Foundation. 2016-2017. \$8,200 (JS portion - 100%)

## 2016

1. **PI.** Sharma J. Sensitive plant research and implementation. Department of Defense Office of Naval Research. 2016-2018. \$178,381 (\$532,043 approved for 3 years in 2015) (JS portion - 100%)
2. **PI.** Sharma J. REU supplement for ‘Testing a microbial-association-distribution hypothesis to explain spatial distributions and species co-existence in communities of epiphytic plants.’ National Science Foundation. 2016-2017. \$7,810 (JS portion - 100%)
3. **PI.** Sharma J, M Dixon, F Jiron. Wetland restoration in New Mexico.

Department of Defense US Army Corps of Engineers. 2016-2017. \$29,944 (Approved for multiple years of additional funding in 2015) (JS portion - 100%)

4. **PI.** Sharma J and J Kaur. Understanding the ecological niche requirements of a rare and endangered orchid species.  
San Diego County Orchid Society. 2016-2018. \$5,050. (JS portion – 100%)

## 2015

1. **Co-PI.** Ulmer J, Trojan S, Sharma J, Kahl S, Mafous RS, and Mill L. Conference for developing a regional agricultural undergraduate research consortium.  
USDA NIFA. 2015-2016. \$29,716 (JS portion – 6%)
2. **PI.** Sharma J. Sensitive plant research and implementation.  
Department of Defense Office of Naval Research. 2015-2017. \$173,000 (\$533,043 approved for 3 years) (JS portion - 100%)
3. **PI.** Sharma J, R Cox, C Portillo, and K Kyle-Griffis. Wetland restoration in New Mexico.  
Department of Defense US Army Corps of Engineers. 2015-2016. \$29,500 (Approved for multiple years of additional funding) (JS portion - 61%)

## 2014

1. **PI.** Sharma J, DLTaylor, and AD Taylor. Collaborative research: Testing a microbial-association-distribution hypothesis to explain spatial distributions and species co-existence in communities of epiphytic plants.  
National Science Foundation. 2014-2019. \$1,135,463 (JS portion - 53%)
2. **PI.** Sharma J. Sensitive plant research and implementation.  
Department of Defense Office of Naval Research. 2014-2016. \$196,020 (JS portion - 100%)
3. **PI.** Sharma J and J Singhurst. Orchid conservation: species status assessments and field biology.  
Texas Parks and Wildlife Department. 2014. \$20,000 (JS portion - 100%)

## 2013

1. **PI.** Sharma J. Sensitive plant research and implementation.  
Department of Defense Office of Naval Research. 2013-2015. \$121,935 (JS portion - 100%)
2. **Co-PI.** Wise C, J Sharma J, and LJ Grauke. Truffle Production and Promotion in Texas: Adding Value to the Pecan Industry.  
USDA Specialty Crop Block Grant Program / Texas Department of Agriculture. 2013-2015. \$55,000 (JS portion - 76%)
3. **PI.** Sharma J. Distribution, ecology, and mapping of three globally rare plant communities. Department of the Interior US Fish and Wildlife Service / Texas Parks and Wildlife Department. 2013-2014. \$40,000 (JS portion - 100%)
4. **PI.** Sharma J. Develop plans for implementation, installing instrumentation, sample collection, and preliminary investigation of mycorrhizal ecology of two wet prairie orchid species at selected sites in Minnesota.  
Minnesota Department of Natural Resources. 2013. \$5,000 (JS portion - 100%)

5. **PI.** Sharma J and A Frances. Integrated assessment of extinction risk of US orchids. National Fish and Wildlife Foundation. 2013-2014. \$40,000 (JS portion - 55%)
6. **PI.** Sharma J and J Singhurst. Orchid conservation: species status assessments and field biology. Texas Parks and Wildlife Department. 2013. \$29,619 (JS portion - 100%)

## 2012

1. **PI.** Sharma J. Temporal and spatial relationships between geography, management, environmental variables, and obligate mycorrhizal dependency in Western Prairie Fringed Orchid (*Platanthera praeclara* Sheviak & Bowles). Department of the Interior U.S. Fish and Wildlife Service. 2012-2015. \$120,000 (JS portion - 100%)
2. **PI.** Sharma J. Conservation genetics of Tobusch fishhook cactus *Sclerocactus brevihamatus* ssp. *tobuschii*. Department of the Interior U.S. Fish and Wildlife Service / University of Texas Lady Bird Johnson Wildflower Center. 2012-2014. \$43,968 (JS portion - 100%)
3. **PI.** Sharma J, B Trela, C Wang, and T Montague. Truffle production in Texas: adding value to the pecan industry (2<sup>nd</sup> Phase). USDA Specialty Crop Block Grant Program / Texas Department of Agriculture. 2012-2013. \$43,500 (JS portion - 70%)
4. **PI.** Sharma J. Systems-based development of pecan truffle (*Tuber lyonii*) for complimentary dual cropping with pecans (*Carya illinoensis*). Texas Tech University College of Agriculture and Natural Resources Research Enhancement Program. 2012-2013. \$5,000 (JS portion - 100%)
5. **Co-PI.** Montague T, C Mckenney, J Sharma, and J Johnson. Improving Management Practices for Olive (*Olea europaea* L.) Production in Texas (Fourth Phase). USDA Specialty Crop Block Grant Program / Texas Department of Agriculture. 2012-2013. \$79,994 (JS portion - 8%)

## 2011

1. **PI.** Sharma J, B Trela, C Wang, and T Montague. Truffle production in Texas: adding value to the pecan industry. USDA Specialty Crop Block Grant Program / Texas Department of Agriculture. 2011-2012. \$45,519 (JS portion - 70%)
2. **Co-PI.** Montague T, C Mckenney, G Henry, and J Sharma. Investigating environmental impact and best management practices for olive (*Olea europaea* L.) production in Texas. USDA Specialty Crop Block Grant Program / Texas Department of Agriculture. 2011-2012. \$67,200 (JS portion - 9%)

## 2010

1. **PI.** Sharma J. Plant-mycorrhizal interactions. Texas Tech University Plant and Soil Science. 2010-2011. \$7,963.54 (JS portion - 100%)
2. **Co-PI.** Montague T, C Mckenney, G Henry, and J Sharma. Investigating environmental impact and best management practices for olive (*Olea europaea* L.) Production in Texas. USDA Specialty Crop Block Grant Program / Texas Department of Agriculture. 2010-2011. \$149,341 (JS portion - 9%)

## 2009



1. **PI.** Sharma J and R Cox. Orchid-mycorrhizal interactions: An unexplored relationship. Texas Tech University College of Agriculture and Natural Resources Research Enhancement Program. 2009-2010. \$5,000 (JS portion - 95%)
2. **PI.** Sharma J. Integrated Conservation of rare orchids and their habitats in southeastern USA. Texas Tech University College of Agriculture and Natural Resources Research Enhancement Program. 2009-2010. \$5,000 (JS portion - 100%)

## 2008

1. **Co- PI.** Perez HE, J Norcini, and J Sharma. Establishing provenance, viability-testing standards and enhanced germination for seed production of wiregrass in Florida. Florida Wildflower Foundation. 2008-2009. \$49,650. (JS portion - 75%)

## 2007

1. **PI.** Sharma J. Phosphorus removal by native ornamentals: potential for form and function. Center for Applied Nursery Research. 2007-2008. \$1,000 (JS portion - 100%)
2. **PI.** Sharma J and VL Yadon. Population genetics of a federally endangered orchid endemic to Monterey County in California. Pebble Beach Company. 2007-2009. \$24,926 (JS portion - 100%)
3. **PI.** Sharma J, W Schall, J Poponoe, and A Bolques. Fungi: biology, identification, and pathogenicity for ornamental plants. University of Florida IFAS Extension Dean's Office. 2007-2008. \$3,600 (JS portion - 80%)
4. **PI.** Sharma J. Extension curriculum development. University of Florida IFAS Extension Dean's Office. 2007-2008. \$500 (JS portion - 100%)

## 2006

1. **PI.** Sharma J, TH Yeager, and JE Funderburk. Bioremediation best management practices to minimize nutrient contamination from nursery runoff. Florida Department of Agriculture and Consumer Services, Office of Water Policy. 2006-2007. \$47,250 (JS portion - 85%)
2. **Co-PI.** Yeager TH, J Albano, and J Sharma. Evaluation of BMPs for reducing phosphorus in runoff from nurseries in south Florida. Florida Department of Agriculture and Consumer Services, Office of Water Policy. 2006-2007. \$95,550 (JS portion - 10%)
3. **PI.** Sharma J. Cowpeat: Influence of the rhizosphere microflora and the effects on leachate quality in woody and perennial plant propagation and production. Florida Department of Agriculture and Consumer Services. 2006-2007. \$100,000 (JS portion - 100%)
4. **PI.** Sharma J and VL Yadon. Mycorrhizae of *Piperia yadonii*. California Native Plant Society & Pebble Beach Company. 2006-2007. \$2,075 (JS portion - 95%)

## 2005

1. **PI.** Sharma J, J Poponoe, and A Bolques. Fungus biology for ornamental plants. University of Florida IFAS Extension Dean Office. 2005. \$5,450 (JS portion - 90%)
2. **PI.** Sharma J. Mitigating excessive nutrients in nursery runoff. Sustane Natural Fertilizers of America, Inc. 2005-2006. \$2,700 (JS portion - 100%)
3. **PI.** Sharma J, JG Norcini, and GW Knox. Mitigation of contaminants in container runoff. May Nursery Endowment Fund & Florida Nursery, Growers and Landscape Association. 2005-2007. \$7,516 (JS portion - 75%)

4. **PI.** Sharma J, TH Yeager, and JE Funderburk. Bioremediation best management practices to minimize nutrient contamination from nursery runoff.  
Florida Department of Agriculture and Consumer Services, Office of Water Policy. 2005-2006. \$63,000 (JS portion - 85%)
5. **Co-PI.** Graves WR, J Schrader, and J Sharma. A better auxin for propagating trees and shrubs.  
Horticultural Research Institute. 2005-2007. \$17,500 (JS portion - 10%)

#### **2004**

1. **Co-PI.** Graves WR, H Kratsch, and J Sharma. Evaluation of bioplastic nursery containers in three climates.  
Horticultural Research Institute. 2004-2006. \$14,000 (JS portion - 10%)
2. **PI.** Sharma J, TH Yeager, J Scholberg, and JE Funderburk. Development of best management practices to minimize sedimentation and nutrient contamination from nursery runoff.  
Florida Department of Agriculture and Consumer Services, Office of Water Policy. 2004-2005. \$114,544 (JS portion - 75%)

#### **2003**

1. **Co-PI.** Graves, WR, J Schrader, and J Sharma. A better auxin for propagating trees and shrubs.  
Horticultural Research Institute. 2003-2004. \$5,000 (JS portion - 20%)

#### **2000**

1. **PI.** Sharma J. Genetic diversity in populations of *Platanthera praeclara*.  
Minnesota Department of Natural Resources. 2000-2001. \$1,000 (JS portion - 100%)

#### **1999**

1. **PI.** Sharma J. Mycorrhizae, germination, and genetics of *Platanthera praeclara*.  
Minnesota Department of Natural Resources. 1999-2001. \$3,500 (JS portion - 100%)

#### **1998**

1. **Co-PI.** Gantzer C and J Sharma. Changes in soil properties and flora composition during restoration of a prairie soil.  
Prairie Forks Conservation Area, Williamsburg, Missouri. 1998-2000. \$16,000 (JS portion - 20%)
2. **PI.** Sharma J and D Schrock. Evaluating landscape potential of 40 native species.  
Missouri Wildflower Nursery, Brazito, Missouri. 1998-2000. \$1,000 (JS portion - 100%)

#### **Not Funded:**

#### **2015**

1. **PI.** Sharma J. Orchid Conservation.  
Texas Parks and Wildlife Department. 2015-2017. \$40,977. (JS portion - 100%)

#### **2014**

1. **Co-PI.** Young J et al. Increasing agricultural water availability through enhanced urban landscape design and sustainable management practices. USDA NIFA AFRI. 2015-2019. \$4,797,784.00 (JS portion - 6%).
2. **PI.** Sharma J, M Smith, G Bonito, and M Brashears. Systems-based development of pecan truffle (*Tuber lyonii*) for complimentary dual cropping with pecans (*Carya illinoensis*). USDA NIFA SCRI. 2014-2017. \$518,162

3. **Co-PI.** Wise C, J Sharma and LJ Grauke. Truffle Production and Promotion in Texas: Adding Value to the Pecan Industry. USDA Specialty Crop Block Grant Program / Texas Department of Agriculture. 2014-2016. \$55,000

## 2013

1. **PI.** Sharma J and S Longing. Pollination biology of Species of Greatest Conservation Need. Texas Parks and Wildlife. 2013-2014. \$50,000
2. **PI.** Sharma J and S Misra. Norman E. Borlaug International Agricultural Science and Technology Fellowship Program - Latin America. USDA. 2013-2014. \$24,069
3. **PI.** Sharma J. Genetic structure and demography of *Echinocereus reichenbachii* var. *albertii*. Department of the Interior U.S. Fish and Wildlife Service / Texas Parks and Wildlife Department. 2014 - 2016. \$100,307

## 2012

1. **PI.** Sharma J. Genetic structure and demography of *Echinocereus reichenbachii* var. *albertii*. Department of the Interior U.S. Fish and Wildlife Service / Texas Parks and Wildlife Department. 2013 - 2015. \$64,834
2. **PI.** Sharma J, M Blanco, and DL Taylor. Is niche habitat specialization in epiphytic orchids facilitated by specialized fungi? American Orchid Society. 2012-2014. \$10,425
3. **PI.** Sharma J. and DL Taylor. Collaborative Proposal: Testing a microbial-association-distribution hypothesis to explain spatial distributions and species co-existence in a community of epiphytic plants. National Science Foundation. 2012-2016. \$1,091,137 (**Pre-Proposal** invited for full submission; **High Priority Invite - Top 12%**).
4. **PI.** Sharma J, M Smith, B Trela, G Bonito, and T Brenneman. Systems-based development of pecan truffle (*Tuber lyonii*) for complimentary dual cropping with pecans (*Carya illinoensis*). USDA NIFA SCRI. 2012-2015. \$885,256
5. **Co-PI.** Ulmer JD, CA Meyers, SJ Trojan, J Sharma, KL Griffis-Kyle, SM Rahman, LV Mills, and SK Misra. Meeting the Challenges of Climate Change: Enhancing Faculty Capacity to Facilitate Undergraduate Research in Agricultural Sciences and Natural Resources. USDA NIFA HEC. 2012-2014. \$149,923
6. **Co-PI.** Misra SK, J Malaga, JD Ulmer, SJ Trojan, C Klein, G Perry, and J Sharma. Biodiversity and Natural Resource Conservation, Climate Change, and Economic Sustainability: Preparing the Next-Generation of Globally Engaged Agricultural Scientists. National Science Foundation. 2012-2015. \$250,000

## 2011

1. **PI.** Sharma J. Conservation ecology of *Hexalectris revoluta*, a critically imperiled and petitioned southwestern species. Department of the Interior U.S. Fish and Wildlife Service / Texas Parks and Wildlife Department. 2012-2014. \$86,577
2. **Co-PI.** Sather N, B Winter, J Sharma. Multi-scale temporal and spatial relationships between geography, management, environmental variables, and obligate mycorrhizal dependency in Western Prairie Fringed Orchid (*Platanthera praeclara* Sheviak & Bowles). Plains and Prairie Potholes Landscape Conservation Cooperative. 2012-2013. \$49,950
3. **PI.** Sharma J, J Cruse-Sanders, M Richards, J Ceska, T Phillips, J Liggio, P Loos, and S Dickman. Concerted orchid conservation in the Southeastern U.S. National Fish and Wildlife Foundation. 2011-2012. \$94,280 (Pre-proposal)

4. **Co-PI.** Pandey M\*\* and J Sharma. Conservation genetics of two orchids. American Orchid Society. 2011-2013. \$11,250

## 2010

1. **PI.** Sharma J, J Cruse-Sanders, M Richards, J Ceska, T Phillips, J Liggio, P Loos, and S Dickman. Integrated orchid conservation in the southeastern U.S. National Fish and Wildlife Foundation. 2011-2012. \$100,809
2. **PI.** Sharma J, DL Taylor, D Bogarin, F Pupulin, and J Carranza. Collaborative Proposal: Does the distribution of compatible mycorrhizal fungi drive epiphytic orchid community structure in tropical forests? National Science Foundation. 2011-2013. \$762,006
3. **Co-PI.** Farmer M et al. Enhancing forest cover in the southeast through long run land use change management. USDA NIFA AFRI-Climate Change NIFA. 2011-2015. \$4,810,000
4. **PI.** Sharma J. Conservation ecology of imperiled orchids. USFWS/Texas Parks and Wildlife Department. 2011-2013. \$160,126
5. **Co-PI.** Pandey M\*\*, J Sharma, and M Richards. Comparison of genetic diversity and fine-scale genetic structure between rare and common North American orchids. American Orchid Society. 2011-2013. \$11,433

## 2009

1. **Co-PI.** Misra S, FJS Sanchez, J Callaghan, C Klein, E Segarra, J Sharma, G Perry, D Lawver, and R Ritz. Partnership to advance academic and community capacities for biodiversity education, conservation and sustainable economic competitiveness in the Puuc-Chenes Region of Mexico. USAID / HED U.S.-Mexico Training, Internships, Exchanges, and Scholarships (TIES) Partnership Initiative. 2009-2011. \$299,537
2. **Co-PI.** Woodward J, RJ Wright, and J Sharma. Characterization of *Botrytis cinerea* isolates via mycelial compatibility, phenotype, and molecular techniques. Norman Hackerman Advanced Research Program. \$96,000 (Pre-proposal)
3. **Co-PI.** Cox R, J Sharma, and J Moore-Kucera. Influence of cheatgrass on ecosystem services in the Southern High Plains: assessing the potential for ecosystem disruption. USDA AFRI. 2009-2012. \$498,714
4. **PI.** Sharma J and H Thorvilson. Assessing red imported fire ant populations and biology in ecologically sensitive habitats, the potential re-infestation reservoirs, in eastern Texas. Texas Imported Fire Ant Research Ant Management Project. 2009-2011. \$104,691

## 2007

1. **Co-PI.** Ogram AV, AA Agely, S Grunwald, S Jose, and J Sharma. Biogeography of mycorrhizal fungi in the southern Western Ghats of India. National Science Foundation. 2007-2011. \$622,524
2. **PI.** Sharma J and TH Yeager. Runoff remediation at plant nurseries: An SFYL learning module. University of Florida / IFAS Extension Dean's Office. 2007-2008. \$15,000
3. **PI.** Sharma J and TH Yeager. Water remediation systems for commercial plant nurseries – videographic training. University of Florida / IFAS Extension Dean's Office. 2007-2008. \$5,000

## 2006

1. **PI.** Sharma J, SL Whitmire, SJ Van Bloem, and KS Inglett. Bioremediation of nutrient contaminants in nursery runoff. USDA T-STAR. 2006-2009. \$149,028 (approved but budget cuts prevented any T-STAR funding during this term)

2. **PI.** Sharma J and WR Graves. Evaluation of new ornamental native plants for remediation of nursery and landscape runoff in two climates. Horticultural Research Institute. 2006-2008. \$14,000

## **2005**

1. **Co-PI.** Mizell R, GW Knox, and J Sharma. Conserving Florida's forests resources: weather-induced tree stress and arthropods. University of Florida / IFAS Center for Natural Resources. 2005-2007. \$20,000
2. **PI.** Sharma J and J Gibson. Better fertilization protocols to improve production efficiency of stock Plants. Horticultural Research Institute. 2005-2007. \$19,000

## **Cash and Gifts-in-Kind**

### **2021**

1. **PI.** Sharma J. 2019. Orchid conservation. Unrestricted gift, Charles Hess, Texas Instruments. \$5,000 (JS portion – 100%)

### **2020**

2. **PI.** Sharma J. 2019. Orchid conservation. Unrestricted gift, Charles Hess, Texas Instruments. \$5,550 (JS portion – 100%)

### **2019**

1. **PI.** Sharma J. 2019. Orchid conservation. Unrestricted gift, Charles Hess, Texas Instruments. \$2,500 (JS portion – 100%)

### **2016**

1. **PI.** Sharma J. 2016. Developing a Regional Agricultural Undergraduate Research Consortium. Bayer Crop Science. \$2,500

### **2012**

1. **PI.** Sharma J. 2012. Mycorrhizal ecology of Brazilian rare orchids. Dr. Cassio van den Berg, Universidade Estadual de Feira de Santana (UEFS), Campo Limpo, Feira de Santana, Bahia, Brazil. 2012-2013. \$2,500

## **SERVICE TO PROFESSIONAL ORGANIZATIONS**

### **International:**

#### **International Union for Conservation of Nature Species Survival Commission (IUCN SSC)**

- a. Appointed, North American Red List Authority, 2021 - present
- b. Invited Member, Orchid Specialist Group, 2007 - Present
- c. Vice-Chair, IUCN SSC North American Region OSG, 2007 - Present

#### **North American Orchid Conservation Center (NAOCC)**

- a. Invited Member, Fungal Bank Committee, 2013 - Present
- b. Invited Member, Seed Bank Committee, 2013 - Present
- c. Appointed Coordinator, Southwest Region, 2014 - Present

### **National:**

#### **Native Orchid Conference, Inc. (NOC)**

- a. Member, 2002 – Present
- b. Founding Board Member, 2002 - 2005
- c. Publication Committee Member, Native Orchid Conference Journal, 2010 - Present.
- d. Chief Editor, Proceedings of the 8th Native Orchid Conference Meeting, 2010
- e. Chief Editor, Native Orchid Conference Journal, 2004 - 2010

#### **Ecological Society of America (ESA)**

- a. Member, 2006 - Present
- b. Secretary, Plant Population Ecology Section, 2009-2010.

#### **USDA NIFA Western Education/Extension and Research Activities (USDA WERA)058**

- a. Member, 2004 - 2005
- b. Treasurer, 2005 - 2006
- c. Vice-Chair, 2006 - 2007
- d. Organizer and Host, Annual Meeting, 2006
- e. Chair, 2007 – 2008

#### **American Society for Horticultural Science (ASHS)**

- a. Member, 2003 - 2016
- b. Chair, 2009-2010; Vice-Chair, 2008-2009; Secretary, 2007-2008, Nursery Working Group
- c. Vice-Chair, 2009-2010; Secretary, 2008-2009, Water Utilization and Management Working Group
- d. Appointed Member, ASHS Cross Commodity Publication Award Committee, 2008 - 2010.

#### **Botanical Society of America (BSA)**

- a. Member, 2008, 2009, 2014

### **Regional/State:**

#### **Texas Plant Conservation Alliance (TPCA)**

- a. Member, 2009 – Present

## **OTHER PROFESSIONAL SERVICE**

**Invited Peer Reviewer of Manuscripts (An average of 4 invites are accepted per year while declining others)** – The dominant journals include: Frontiers in Plant Science, Conservation Genetics, Symbiosis, Mycorrhiza, Molecular Ecology, Mycologia, New Phytologist, PLoS ONE, Genetica, HortScience, Biochemical Systematics and Ecology, Gene, Journal of the American Society for Horticultural Science, Agroforestry Systems, Endangered Species Research, Diversity, and others.

### **Invited International:**

1. 2013. **Invited expert reviewer** for global assessment of the extinction risk of plant species for International Union for Conservation of Nature Species Survival Commission (IUCN SSC). Each assessment is a peer-reviewed publication.

Invited by IUCN SSC OSG, United Kingdom.

- a. *Cypripedium calceolus*, <http://www.iucnredlist.org/details/162021/0>
  - b. *Cypripedium arietinum*, <http://www.iucnredlist.org/details/43315496/0>
  - c. *Cypripedium californicum*, <http://www.iucnredlist.org/details/43315511/0>
  - d. *Cypripedium candidum*, <http://www.iucnredlist.org/details/43315514/0>
  - e. *Cypripedium fasciculatum*, <http://www.iucnredlist.org/details/43315656/0>
  - f. *Cypripedium guttatum*, <http://www.iucnredlist.org/details/203370/0>
  - g. *Cypripedium montanum*, <http://www.iucnredlist.org/details/43316810/0>
  - h. *Cypripedium reginae*, <http://www.iucnredlist.org/details/43316825/0>
  - i. *Cypripedium passerinum*, <http://www.iucnredlist.org/details/43316819/0>
  - j. *Cypripedium parviflorum*, <http://www.iucnredlist.org/details/43316816/0>
2. 2013. Grant reviewer. Estonian National Science Foundation (Estonian Research Council), Estonia.
  3. 2013. Grant reviewer. Estonian National Science Foundation (Estonian Research Council), Estonia.
  4. 2011. Review panel. Rustaveli National Science Foundation, Georgia.
  5. 2010. Review panel. Australian Antarctic Division, Australia.

### **Invited National:**

1. 2021. – **declined** NSF DEP PCE Panel Invite
2. 2020. NSF DEB Population and Community Ecology Cluster Panel Service. (December 2019 to January 2020)
3. 2019. NSF DEB DEB Population and Community Ecology Cluster Panel Service (December 2018 to March 2019)
4. 2018. NSF DEB DEB Population and Community Ecology Cluster Panel Service (December 2017 to March 2018)
5. 2017. NSF DEB Population and Community Ecology Cluster Panel Service (April 2017)
6. 2016. NSF DEB Population and Community Ecology Cluster Proposal Review (October 2016)
7. 2015. NSF DEB Population and Community Ecology Cluster Panel Service (December 2015)
8. 2013. Biology Scientific Method Lab Review. WH Freeman Publishing, New York.

9. 2013. Promotion application of Associate to Full Research Professor at Smithsonian Environmental Research Center, Maryland. (Declined due to lack of time.)
10. 2010. Petition for listing *Hexalectris colemanii* under the federal Endangered Species Act. United States Department of the Interior, US Fish and Wildlife Service, Arizona Ecological Services Office, Arizona.
11. 2010. Promotion and Tenure application of Assistant to Associate Research Professor at Smithsonian Environmental Research Center, Maryland.
12. 2005. Department of Horticulture Curriculum, University of Minnesota - Crookston, Minnesota.

## **CONSULTING ACTIVITIES**

Ongoing consultation on plant conservation with:

1. International Union for Conservation of Nature Species Survival Commission (IUCN SSC) Orchid Specialist Group
2. Costa Rica National Parks (SINAC)
3. Belarus National Academy of Sciences, Central Botanical Gardens
4. United States Department of Defense
5. United States Department of the Interior Fish and Wildlife Service
6. United States National Park Service
7. Atlanta Botanical Garden, Georgia, USA
8. California Fish and Wildlife
9. California State Parks
10. Minnesota Landscape Arboretum, Minnesota, USA
11. Texas Plant Conservation Alliance, Texas, USA
12. Texas Parks and Wildlife Department, Texas, USA

## **SERVICE TO**

### **UNIVERSITY**

1. 2021 – present. Faculty Equity Advocate for college, NSF-ADVANCE-ADAPT program. Texas Tech University.
2. 2021 - Dean Search and Screen Committee Member, College of Visual and Performing Arts. Texas Tech University.
3. 2021 - present. Vice-President. Faculty Senate. Texas Tech University.
4. 2021- present. Member. Faculty Senate Campus Climate Committee. Texas Tech University.
5. 2021 – present. Member. TTU-CR Research Strategic Planning Committee. Texas Tech University.
6. 2020 - 2021. Chair, Faculty Senate Campus Climate Committee. Texas Tech University.
7. 2020 – Member, Provost’s Ad Hoc Committee to screen for an endowed position. Texas Tech University.
8. 2020 – present. Provost’s Honors and Awards Committee, Texas Tech University.
9. 2019 – 2020. Faculty Senate Representative. Texas Tech University.
10. 2019 – Ad Hoc Reviewer for TTU Big XII applications (invited by the Provost’s office).
11. 2018- 2020. Ex Officio Member, Faculty Senate Campus Climate Committee, Texas Tech University.
12. 2017. Chair. Faculty Senate Campus Climate Committee, Texas Tech University.



13. 2017. Member. CASNR Dean Search Committee, Texas Tech University.
14. 2016 - **present**. Tenure Advisory Committee, Texas Tech University.
15. 2016 - **present**. Faculty Grievance Committee, Texas Tech University.
16. 2015 - 2018. Faculty Senate Study Committee on Funded Research, Texas Tech University.
17. 2015 - 2018. Faculty Senate Representative, Texas Tech University.
18. 2015 - **present**. Institutional Biosafety Committee, Texas Tech University.
19. 2014 - present. Member. Texas Tech University STEM-CORE Faculty.
20. 2014. Reviewer. Texas Tech University Graduate School Scholarships.
21. 2013. Department Coordinator and Representative. Texas Tech University Research Carnival.
22. 2013. Team Member. Olson M, C Cannon, J Sharma, D Schwilk, D Auld, S Holaday, P Payton, H Shi, Z Xie, J Zak, H Zhang, and C Rock. Cluster Hire Proposal: Tackling the Phenome-Genome Challenge in Plants. Texas Tech University Office of the President. Proposal for 4 faculty hires across Biological Sciences, Plant and Soil Science, and Chemistry and Biochemistry.
23. 2013. Reviewer. Texas Tech University Graduate School Scholarships.
24. 2011 - 2012. Mentor to a Ph.D. student (Marko Davinic), a TEACH Fellow in the Teaching Effectiveness and Career enhancement Program sponsored by the Teaching, Learning, and Technology Center of Texas Tech University.
25. 2011. Judge. Texas Tech University Undergraduate Research Conference.
26. 011. Judge. South Plains Science and Engineering Fair. Hosted by Texas Tech University.
27. 2011. Instructor. Upward Bound Program. Hosted by Texas Tech University, Lubbock, Texas.
28. 2010. Judge. Texas Tech University Undergraduate Research Conference.

## COLLEGE

1. 2021- present. Co-Chair. Diversity, Equity, and Inclusion Committee. Davis College, TTU.
2. 2019. Member. Plant and Soil Science Chair Search and Screen Committee.
3. 2018-2019. Member. CASNR Defining Excellence Committee.
4. 2011 - **present**. Member. CASNR STEM Steering Committee.
5. 2011 - **present**. Member. Texas Tech University CASNR Mediation Committee.
6. 2013. Co-organizer. Misra S, J Sharma, J Ulmer, S Trojan, SM Rahman, and L Mills. 2013. Council on Undergraduate Research symposium: Institutionalizing undergraduate research, scholarship, and creative activity. 12-13 September. Texas Tech University. Lubbock, Texas.
7. 2013 - 2014. Member. CASNR Plant and Soil Science Department Chair Search and Screen Committee.

## DEPARTMENT

1. 2021 – present. Chair or member of 3+ 3<sup>rd</sup> Yr. Review Committees.
2. 2019. Member. Horticulture Assistant Professor Search and Screen Committee.
3. 2018. Member. Horticulture Assistant Professor Search and Screen Committee.
4. 2018. Chair. Three-year Review Process Committee.
5. 2016 - present. Member. Curriculum Committee.
6. 2015 - 2017. Member. Greenhouse Committee.
7. 2014. Member. Cotton Genomics Endowed Professor Search and Screen Committee.

8. 2012 - 2014. Plant and Soil Science Building Addition Committee. Provided detailed input on laboratory design.
9. 2012 - 2013. Member. Horticulture faculty Search and Screen Committee.
10. 2011 - 2012. Member. Dissertation Award Committee.
11. 2010. Member. Crop Physiology Assistant/Associate/Full Professor Search and Screen Committee.
12. 2010 - 2011. Member. Graduate Programs Committee.

## COMMUNITY

**Please see the Workshops section for service to national and international communities since 2015.**

1. 2013 - 2014. Facilitated obtaining funding (\$10,000) from US Fish and Wildlife Service Partners for Fish and Wildlife program for an Interpretive Trail project at Watson Native Plant Preserve in Tyler County, Texas.
2. 2012. Invited Speaker. Sharma J. and S Wang\*. Pecan truffles in Texas. Texas A&M AgriLife Comanche County Extension Meet. 19 July. Comanche, Texas.
3. 2012. Invited Speaker. Sharma J. Orchid biology. 26 July. South Plains Gardening Club. Lubbock, Texas.
4. 2011. Created and provided an educational recording on orchid conservation for Atlanta Botanical Garden's orchid exhibit and call-in plant information line. Atlanta, Georgia.
5. 2011. Judge. South Plains Science and Engineering Fair. Hosted by Texas Tech University.
6. 2010. Invited Speaker. Sharma J. Conservation of rare native plants II. 14 August. Lubbock Memorial Arboretum. Lubbock, Texas.
7. 2010. Invited Speaker. Sharma J. Conservation of rare native plants I. 10 April. Lubbock Memorial Arboretum. Lubbock, Texas.

## INDUSTRY

1. 2012 – present. Consultations on native truffle production in Texas and the southeastern United States.
2. 2014 - 2015. Member of research consulting team to SYMBIOS LLC for optimizing truffle production and location in North America.
3. Hamilton M\* and J Sharma. 2014. *Tuber lyonii* symbiosis with *Carya illinoensis*. Texas Pecan Growers Association. 13-15 July. San Marcos, Texas. (Poster and Demonstration Booth)
4. 2013 - 2016. Co-PI with Texas Pecan Growers Association on a Texas Department of Agriculture funded grant.
5. 2012. Invited Speaker. Sharma J. Pecan orchards: fertile ground for truffles. 17 July. Texas Pecan Growers Association. San Marcos, Texas.