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EDUCATION

2010 Ph.D. Plant Systematics, Ecology, and Evolution, University of Missouri-Saint Louis.
 2002 M.S. Plant Systematics, Ecology, and Evolution, University of Missouri-Saint Louis.
 1998 M.S. Electron Microscopy in Biological Sciences, Autonomous National University of Mexico.
 1995 B.S. Biology, Autonomous National University of Mexico.

PROFESSIONAL EXPERIENCE

2017–present Assistant Professor and Herbarium Director, New Mexico State University.
 2015–2016 USDA-NIFA Postdoctoral Fellow. Prairie View University, Texas A&M.
 2012–2015 USDA-NIFA Postdoctoral Fellow. Indiana University, Bloomington, Indiana.
 2011–2012 Scientific Editor. Missouri Botanical Garden Press, St. Louis, Missouri.
 2010–2011 Research Associate. Missouri Botanical Garden Herbarium, St. Louis, Missouri.
 2007–2008 Teaching Assistant. Human Anatomy, University of Missouri-Saint Louis.
 2005–2006 Teaching Assistant. General Biology, University of Missouri-Saint Louis.
 1994–2000 Manager. Electron Microscopy Research Lab, IBUNAM, Autonomous National University of Mexico.
 1993–1994 Student Research Assistant. Herbarium-IBUNAM, Autonomous National University of Mexico.

FELLOWSHIPS

2015–2016 USDA-NIFA postdoctoral fellowship, \$66,000
 2012–2015 USDA-NIFA postdoctoral fellowship, \$90,000
 2009–2010 Missouri Botanical Garden Research Associate, \$12,000
 2008–2009 Missouri Botanical Garden, Graduate Research Support Fellowship, \$24,000
 2007–2008 Desmond Lee Foundation Scholar Award, \$12,000
 2007 Alan & Shirley Graham Graduate Student Research Fellowship, \$1,000
 2005–2008 University of Missouri, Graduate Research Fellowship, \$40,000
 2005 Missouri Botanical Garden, Graduate Student Research Fellowship, \$5,000
 2000–2005 Consejo Nacional de Ciencia y Tecnología Fellow, \$50,000

GRANTS

2022–2025 NSF, OISE, IRES - Track I: GYP-NEXTGEN: Empowering future scientists within an international consortium focused on gypsum plant communities, PIs: R. Drenovsky (PI), M. Moore (Co-PI), D. Bailey (Co-PI), N. Pietrasiak (Co-PI), A. L. Romero-Olivares, (Co-PI), **S. Fuentes-Soriano (Co-PI)** & 6 international collaborators. \$380,000
 2021–2024 NSF, MIR: Acquisition of a Bio-AFM for Life Science and Soft Matter Research and Research Training in New Mexico, PIs: E. Serrano (PI), J. Randall (Co-PI), B. Shuster (Co-PI), & **S. Fuentes-Soriano (Co-PI)**. \$475,685

- 2021–2023 NSF-REU: Consortium for Plant Invasion Genomics (CPING), Pis: N. Kooyers (PI), J. Beck (Co-PI), E. Sigel (Co-PI), M. Latvis (Co-PI), C. Barrett (Co-PI), **S. Fuentes-Soriano (Regional Co-PI)**. \$10,000
- 2021–2023 BLM, NM NCLS Early Maize Study from the Peña Blanca Rockshelters, Pis: R. T. Alexander (PI), K. Jenks (Co-PI), F. Arakawa. (Co-PI), D. Bailey (Co-PI), **S. Fuentes-Soriano (Co-PI)**. \$72,000.00
- 2021–2024 USDA-NIFA: Enhancing Hispanic Access to Natural Resource and Agricultural Careers through Education, Mentorship, and Training (ENHANCEMENT), Pis: A. Romero (PI), M. Desmond (Co-PI), W. Boing (Co-PI), Olguin (Co-PI), C (Co-PI), **S. Fuentes-Soriano (Mentor)**. \$44,000
- 2020–2021 USDA-NRCS: Elevating Public Awareness to the Role of Microbes in Rangeland Soil Health. Pis: N. Pietrasiak (PI), A. C. Ganguli (Co-PI), **S. Fuentes-Soriano (Co-PI)**. \$40,000.00
- 2018–2021 NSF-CSBR: Consolidating, Modernizing and Harnessing the Full Potential of Two Herbaria Collections at New Mexico State University, Pis: **Fuentes-Soriano, S. (PI)**, Z. S. Rogers (Co-PI), N. Pietrasiak (Co-PI), D. Bailey (Co-PI), A. C. Ganguli (Co-PI). \$422,960.00
- 2018 Native Plant Society of New Mexico – Otero Chapter: I Seed What You Did There...Exploring the NMC Herbarium and the Seeds of Success Program, Pis: **S. Fuentes-Soriano (PI)** & C. Battista (Co-PI). \$1,450
- 2017–2021 BLM: Resource Management Planning Support for Organ Mountains Desert Peaks and Prehistoric Trackways National Monuments, Pis: R. Alexander (PI), K. Jenks (Co-PI), F. Arakawa (Co-PI), D. Bailey (Co-PI), **S. Fuentes-Soriano (Co-PI)**. \$79,365
- 2017 Plant Environmental Sciences, ACES, NMSU, Building the NMSU plant biocrust reference collection, Pis: N. Pietrasiak (PI) & **S. Fuentes-Soriano (Co-PI)**. \$1,000
- 2017 Extension Plant Sciences, ACES, Building the NMSU weed plant reference collection, Pis: L. Beck (PI), **S. Fuentes-Soriano (Co-PI)**. \$1,500

DONATIONS AND ENDOWMENTS

- 2020–2021 J. M. Wilson gift to the Herbarium, Planned Gift - NMSU foundation, \$61,600
- 2020 R. W. Spellenberg Herbarium Endowed Fund, Planned Gift - NMSU Foundation, \$25,000
- 2017–2020 Friends of the Herbarium and Thomas R. Ferguson Herbarium Internship endowments donations, NMSU Alumni and various stakeholders, \$14,500
- 2017–2022 In-kind donations - Herbarium Volunteering program. Assuming current NM minimum wages \$48,000+

PUBLICATIONS (*undergraduate student advisee, **graduate student advisee)

- 2021 **Fuentes-Soriano, S.** & Kellogg, E. A. Molecular Systematics of the Tribe Physarieae (Brassicaceae) Based on the Nuclear ITS, *LUMINIDEPENDENS*, and Chloroplast *ndhF*. *Systematic Botany* 46(3): 611–62. <https://doi.org/10.1600/036364421X16312067913318>
- 2021 **Fuentes-Soriano, S.** & Kellogg, E. A. Data from: Molecular Systematics of the Tribe Physarieae (Brassicaceae) Based on the Nuclear ITS, LUMINIDEPENDENS, and Chloroplast *ndhF*. Sequence alignments, trees, and supplemental figures S1 and S2. *Dryad Digital Repository* <https://doi.org/10.5061/dryad.w0vt4b8pc>
- 2021 Rogers, Z. S. & **Fuentes-Soriano S.** *Solmsia*: a taxonomic revision of an endemic New Caledonian genus of Thymelaeaceae. *Adansonia* 43(12): 125–150. <https://doi.org/10.5252/adansonia2021v43a12>
- 2021 Beymer, C., Rogers, Z., & **Fuentes-Soriano, S.** Carter Conservation Fund Helps Safeguard NMSU Bryophyte Collection. *Newsletter of the Native Plant Society of New Mexico* 46: 10–11.
- 2020 Gao, M., **S. Fuentes-Soriano**, S. Sanders, Q. Cao, X. Yang, & G. Lu. Hexaploid Sweetpotato (*Ipomoea batatas* (L.) Lam.) may not be a true type to either auto- or allopolyploid. *PLOS One*, 15(3): e0229624. DOI: 10.1371/journal.pone.0229624
- 2018 **Fuentes-Soriano, S.**, L. Prihodko, Z. S. Rogers, & M. Manford*. Shining a New Light on Elmer Otis Wooton's Legacy Herbarium and Historical Archive: An Exercise to Increase Student

- Participation while Promoting Public Engagement. *Biodiversity Information Science and Standards* 2: e25783 doi: 10.3897/biss.2.25783
- 2017 Barcelos B**, **S. Fuentes-Soriano**, J. Watts*, F. Williams, F. R. B. Ribeiro, W. B. Foxworth, L. C. Nuti, G. R. Newton, & S. K. Lewis. P3046 Gene expression in developing goat testes: Sequencing, assembly, and identification of caprine spermatogenesis transcriptome. *Journal of Animal Sciences* doi:10.2527/jas2016.94supplement475a.
- 2017 Barcelos, B.**, **S. Fuentes-Soriano**, J. Watts*, F. Williams, F.R.B. Ribeiro et al. Gene expression in developing goat testes: sequencing, assembly, and identification of caprine spermatogenesis transcriptome. *Journal of Animal Sciences* 94(suppl. 4): 75–76.
- 2016 Sánchez-Del Pino I., **S. Fuentes-Soriano**, K. Z. Solis-Fernández, R. Pool**, & R. Alfaro**. The metareticulate pollen morphology of *Alternanthera* Forssk. (Gomphrenoideae, Amaranthaceae) and its taxonomic implications. *Grana*: <http://dx.doi.org/10.1080/00173134.2015.1120774>.
- 2015 Al-Shehbaz, I. & **S. Fuentes-Soriano**. Brassicaceae. In *Flora Mesoamericana*. G. M. Davidse, M. Sousa S., and S. Knapp (eds.). *Missouri Botanical Garden Press*, Missouri.
- 2014 Neale D. B., J. L. Wegrzyn, K. A. Stevens, A. V. Zimin, D. Puiu, M. W. Crepeau, C. Cardeno, M. Koriabine, A. E. Holtz-Morris, J. D. Liechty, P. J. Martínez-García, H. A. Vasquez-Gross, B. Y. Lin, J. J. Zieve, W. M. Dougherty, **S. Fuentes-Soriano**, L.-S. Wu, D. Gilbert, G. Marçais, M. Roberts, C. Holt, M. Yandell, J. M. Davis, K. E. Smith, J. F. D. Dean, W. W. Lorenz, R. W. Whetten, N. Sederoff, N. Wheeler, P. E. McGuire, D. Main, C. A. Loopstra, K. Mockaitis, P. J. deJong, J. A. Yorke, S. L. Salzberg, & C. H. Langley. Decoding the massive genome of loblolly pine using haploid DNA and novel assembly strategies. *Genome Biology* 15: R59. <http://genomebiology.com/2014/15/3/R59>.
- 2013 **Fuentes-Soriano, S.** & I. Al-Shehbaz. Phylogenetic relationships of mustards with multiaperturate pollen (Tribe Physarieae, Brassicaceae) based on chloroplast *ndhF*: implications for morphological diversification. *Systematic Botany* 38(1): 178–191.
- 2012 C. Parra & **S. Fuentes-Soriano**. Brassicaceae. In *Flora de Antioquia: Catalogo de las plantas vasculares. Vol II. Listado de las plantas vasculares del Departamento de Antioquia*. A. Idárraga Piedrahíta, R. del C. Carmen Ortíz, R. Callejas Posada, and M. Merello (eds.). Ed. D'Vinni, Bogota, Colombia. Pp. 358–360.
- 2010 **Fuentes-Soriano, S.** Phylogenetics, morphology, and genomic evolution in Physarieae (Brassicaceae). *Ph.D. dissertation*. University of Missouri-Saint Louis, Saint Louis, Missouri.
- 2010 **Fuentes-Soriano, S.** & I. Al-Shehbaz. *Pennellia* Nieuwland. Pp. 559–561 in *Flora of North America*, North of Mexico, Volume 7: Magnoliophyta: Salicaceae to Brassicaceae. *Flora of North America* Editorial Committee. Oxford University Press, New York.
- 2010 Torres-Colin**, L., **S. Fuentes-Soriano**, & A. Delgado. Estudio palinológico del género *Macroptilium* (Benth.) Urb. (Leguminosae) en México y Central América. *Acta Botánica Mexicana* 91: 51–69.
- 2007 Bures P., P. Marda, I. Hralova, **S. Fuentes-Soriano**, M. Lysak, R. Epka, K. Helanova, O. Rotreklova, J. Prochazkova, L. Uradniek, & J. Krova. Correlation between GC content and genome size in plants. *Cytometry* 71A (9): 764.
- 2006 Flores-Olvera, H., **S. Fuentes-Soriano**, & E. Martínez Hernández. Pollen morphology and systematics of Atripliceae (Chenopodiaceae). *Grana* 20: 175–194.
- 2004 **Fuentes-Soriano, S.** A taxonomic revision of *Penellia* (Brassicaceae). *Harvard Papers in Botany* 8: 173–202.
- 2002 **Fuentes-Soriano, S.** A taxonomic revision of *Penellia* (Brassicaceae). *M.S. thesis*. University of Missouri-Saint Louis, Saint Louis, Missouri.
- 1999 Rico, M. de L., M. Sousa S. & **S. Fuentes-Soriano**. *Guinetia*: a new genus in the tribe Ingeae (Leguminosae: Mimosoideae) from Mexico. *Kew Bulletin* 54: 979–981.
- 1998 **Fuentes-Soriano, S.** Estructura y morfología de granos de polen del género *Phaseolus* (Fabaceae: Phaseolinae). *M.S. in Electron Microscopy*. UNAM, Mexico City.
- 1998 **Fuentes-Soriano, S.**, P. Ramos-Godínez, E. Sánchez-Espindola & A. Delgado-Salinas. Exine ultrastructure from *Phaseolus* L. pollen grains (Leguminosae, Phaseolinae). *Electron Microscopy Symposium II*, Mexico. 4: 91–92.
- 1998 Bizuet-Flores Y., **S. Fuentes-Soriano**, & M. Balcazar-Lara. Scanning Electron Microscopy contributions in the analysis of internal and external morphology for numerical taxonomy of butterflies. *Electron Microscopy Symposium II*, Mexico. 4: 53–54.

- 1995 **Fuentes-Soriano S.** La familia Cruciferae en suelos salinos y yesosos de Mexico: flora y diversidad. *B.S. thesis*. UNAM, Mexico City.

Journal Articles (*in prep.*)

1. **Fuentes-Soriano S.**, N. Kooyes & M. Steignberg. *A native abroad: the genomics of invasive *Heterotheca subaxillaris**. To be submitted to *Molecular Evolutionary Biology* in December 2022.
2. **Fuentes-Soriano S.** & Rogers Z. S. Diversity and biogeography of New Mexican plants: status on floristic information. To be submitted to the *Global Ecology and Conservation Journal* in November 2022
3. Rogers Z. S., **Fuentes-Soriano S.** & six additional PATFoL scientists. Evolution and systematics of Thymelaeaceae using whole genome sequence data. To be submitted to *American Journal of Botany* October 2022.
4. Rogers Z. S. & **Fuentes-Soriano S.** An analysis of vascular plant diversity in New Mexico. To be submitted to *Biodiversity and Conservation Journal* in September 2022.

Technical Scientific Reports

- 2021 **Fuentes-Soriano, S.** & Z. S. Rogers with contributions from N. Pietrasiak, D. Bailey, & A. Ganguli. CSBR: Natural History: Consolidating, modernizing, and harnessing the full potential of two herbaria collections at New Mexico State University. Prepared for the National Science Foundation, Award 1756512.
- 2021 **Fuentes-Soriano, S.** & D. Bailey. Accurately curated, comprehensive set of georeferenced botanical specimen data from the Organ Mountains-Desert Peaks National Monument, Doña Ana Co., New Mexico. Prepared for the Bureau of Land Management, Las Cruces District, Las Cruces, New Mexico, Cooperative Agreement Number No. L17AC00370, NMCRIS Number 142285.
- 2021 **Fuentes-Soriano, S.**, D. Bailey, R. Alexander, K. Jenks, & F. Arakawa. BLM-NM NCLS Early Maize Study from the Peña Blanca Rockshelters, Doña Ana Co., New Mexico. Prepared for the Bureau of Land Management, Las Cruces District, Las Cruces, New Mexico, Cooperative Agreement Number No. L19AC00183.
- 2021 **Fuentes-Soriano, S.** & Z. S. Rogers with contributions from N. Pietrasiak, D. Bailey, & A. Ganguli. CSBR: Natural History: Consolidating, modernizing, and harnessing the full potential of two herbaria collections at New Mexico State University. Prepared for the National Science Foundation, Award 1756512
- 2021 **Fuentes-Soriano, S.** & D. Bailey Accurately curated, comprehensive set of georeferenced botanical specimen data from the Organ Mountains-Desert Peaks National Monument, Doña Ana Co., New Mexico. Prepared for the Bureau of Land Management, Las Cruces District, Las Cruces New Mexico, Cooperative Agreement Number No. L17AC00370, NMCRIS Number 142285.
- 2020 **Fuentes-Soriano, S.** & Z. S. Rogers with contributions from N. Pietrasiak, D. Bailey, and A. Ganguli. CSBR: Natural History: Consolidating, modernizing, and harnessing the full potential of two herbaria collections at New Mexico State University. Prepared for the National Science Foundation, Award 1756512
- 2020 **Fuentes-Soriano, S.** & D. Bailey. Accurately curated, comprehensive set of georeferenced botanical specimen data from the Organ Mountains-Desert Peaks National Monument, Doña Ana Co., New Mexico. Prepared for the Bureau of Land Management, Las Cruces District, Las Cruces NM, Cooperative Agreement Number No. L17AC00370, NMCRIS Number 142285.
- 2020 **Fuentes-Soriano, S.**, D. Bailey, R. Alexander, K. Jenks, & F. Arakawa. BLM-NM NCLS Early Maize Study from the Peña Blanca Rockshelters, Doña Ana Co., New Mexico. Prepared for the Bureau of Land Management, Las Cruces District, Las Cruces, New Mexico, Cooperative Agreement Number No. L19AC00183.
- 2018 **Fuentes-Soriano, S.** & D. Bailey. Accurately curated, comprehensive set of georeferenced botanical specimen data from the Organ Mountains-Desert Peaks National Monument, Doña Ana Co., New Mexico. Prepared for the Bureau of Land Management, Las Cruces District, Las Cruces New Mexico, Cooperative Agreement Number No. L17AC00370, NMCRIS Number 142285.

Conference Proceedings (*undergraduate student advisee, **graduate student advisee)

- 2022 Mancillas, M.**, Prihodko, L. & **Fuentes-Soriano, S.** Back to the Future: Using Historical Records to Assess Plant Community Shifts Along an Elevational Gradients in a New Mexico Sky Island. *Society for the Management Annual Meeting*. Albuquerque, New Mexico.
- 2022 Funk, M.**, A. R. Cox, L. C. Bender, M. M. McIntosh, A. F. Cibils, S.A. Spiegel, R. E. Estell & **Fuentes-Soriano S.** Oryx (*Oryx gazella gazella*) occupancy patterns in a long-term grazing study in the Chihuahuan Desert of New Mexico. *Society for the Management Annual Meeting*. Albuquerque, New Mexico.
- 2021 Mancillas, M.**, Lopez, J.*, Juanico, C.*, Prihodko, L. & **Fuentes-Soriano, S.** Back to the Future: Using Historical Records to Assess Plant Community Shifts Along Elevational Gradients in the Organ Mountains Sky Islands. Research and Creativity Week 2021, NMSU, New Mexico.
- 2021 Nez, T.**, Faist, A. M. & **Fuentes-Soriano, S.** The quest for sprouting common desert dropseed species (*Sporobolus* R. Rb., Poaceae) from the Chihuahuan Desert. *Research and Creativity Week 2021*, NMSU, Virtual.
- 2021 Mancillas, M.**, Lopez, J.*, Prihodko, L. & **Fuentes-Soriano, S.** *Blast from the Past: Organ Mountain historical ecology*. Native Plant Society of New Mexico 2021 Annual Conference: People and Native Plants a Journey Through Time, Native Plant Society of New Mexico, Alamogordo, New Mexico.
- 2021 Lopez, J.*, Mancillas, M.**, Rogers, Z. S. & **Fuentes-Soriano, S.** Bringing Order to Nature: The Making of a Historical and Current Plant List from the Organ Mountains, NM. *Native Plant Society of New Mexico 2021 Annual Conference: People and Native Plants a Journey Through Time*. Native Plant Society of New Mexico, Alamogordo, New Mexico.
- 2021 **Fuentes-Soriano, S.** A native abroad: The spread of camphorweed into the Holy Land (*Heterotheca subaxillaris*). *Consortium for Plant Invasion Genomics 2021 Annual Conference*, University of Louisiana at Lafayette, Lafayette, Louisiana.
- 2021 Johnson, R.* & **Fuentes-Soriano, S.** It's a Morphological Mess! Uncovering parental genomic sources of camphor weed in Israel. *Consortium for Plant Invasion Genomics 2021 Annual Conference*. University of Louisiana at Lafayette, Lafayette, Louisiana.
- 2021 Harpold, T.*, Z. S. Rogers, & **S. Fuentes-Soriano, S.** Urban Forestry: Using the New Mexico State University Campus as a Model System for Sustainability. *Proceedings of the Annual meeting of the Society of American Foresters*, Louisville, Kentucky.
- 2021 **Fuentes-Soriano, S.** & T. Harpold*. Natives vs. Exotics: Reducing non-native plant species in urban landscapes of Southern New Mexico. *Botany 2021*, Phoenix, Arizona.
- 2021 **Fuentes-Soriano, S.**, I. Guzman, & S. Ramirez*. The more the merrier? Bioprospecting the bitterness of cytogenetic variants from creosote bush (*Larrea tridentata* (DC.) Coville, Zygophyllaceae) in the Sonoran and Chihuahuan desert. *Botany 2021*, Phoenix, Arizona.
- 2021 **Fuentes-Soriano, S.**, I. Guzman, & S. Ramirez*. The more the merrier? Bioprospecting the bitterness of cytogenetic variants from creosote bush (*Larrea tridentata* (DC.) Coville, Zygophyllaceae). Undergraduate Research & Creative Arts (URCAS), Las Cruces, New Mexico.
- 2020 Hopper A.*, S. Ramirez*, **S. Fuentes-Soriano**, & I. Guzman. Bioprospecting medicinal compounds from Sonoran and Chihuahuan creosote bush. *NMSU Research and Creative Week*, Las Cruces, New Mexico.
- 2017 Harpold T.* & **S. Fuentes-Soriano**. Native vs. Exotics: The benefits of going local. *Native Plant Society of New Mexico Annual conference*. Taos, New Mexico.
- 2017 Battista C.* & **S. Fuentes-Soriano**. I Seed What You Did There...Exploring the NMC Herbarium and the Seeds of Success Program. *Native Plant Society of New Mexico Annual conference*. Taos, New Mexico.
- 2017 Watts J.*, B. Barcelos**, **S. Fuentes-Soriano**, F. Williams, F. B. Ribeiro, W. B. Foxworth, L. C. Nuti, G. R. Newton, & S. K. Lewis. Identification of a Caprine Spermatogenesis Transcriptome. *Annual Biomedical Research Conference for Minority Students conference*. Phoenix, Arizona.
- 2017 Barcelos B.**, J. Watts*, **S. Fuentes-Soriano**, F. Williams, F. B. Ribeiro, W. B. Foxworth, L. C. Nuti, G. R. Newton, & S. K. Lewis. Gene Expression in Developing Goat Testes: Sequencing,

- Assembly, and Identification of Caprine Spermatogenesis Transcriptome. *50th Society for the Study of Reproduction*. Washington, D.C.
- 2016 Srivastava, A. *, **S. Fuentes-Soriano**, & M. Gao. Gene marker discovery and origins of sweet potato by analyzing transcriptomic data. *13th Annual Pathways Student Symposium*. Prairie View A&M University. Prairie View, Texas.
- 2016 Barcelos B. **, **S. Fuentes-Soriano**, J. Watts, F. Williams, F. R. B. Ribeiro, W. Foxworth, L. C. Nuti, G. R. Newton, & S. K. Lewis. Transcriptional profile during acquisition of spermatogenesis function in the goat testes. *Annual Meeting of the Texas Genetics Society*. Houston, Texas.
- 2016 Barcelos B. **, **S. Fuentes-Soriano**, J. Watts, F. Williams, F. R. B. Ribeiro, W. Foxworth, L. C. Nuti, G. R. Newton & S. K. Lewis. Gene expression in developing goat testes: sequencing, assembly, and identification of caprine spermatogenesis transcriptome. *35th International Society for Animal Genetics conference*. Salt Lake City, Utah.
- 2016 Watts J. *, F. Williams, Barcelos B. **, **S. Fuentes-Soriano**, F. R. B. Ribeiro, W. Foxworth, L. C. Nuti, G. R. Newton, & S. K. Lewis. The identification of molecular biomarkers for improving goat fertility using genomic tools. *Undergraduate Research Symposium iRISE-UP*. Prairie View, Texas.
- 2015 Wu L.-S., C. Loopstra, **S. Fuentes-Soriano**, D. Gilbert, & K. Mockaitis. *De novo* transcript assembly and comparisons of software used in building the Loblolly pine references Transcriptome. *XXIII Plant and Animal Genome international conference*. San Diego, California.
- 2014 Sanchez del Pino I. & **S. Fuentes-Soriano**. The metareticulate pollen morphology of *Alternanthera* Forssk. (Gomphrenoidea, Amaranthaceae) and its phylogenetic and taxonomic implications. *Botany 2014*. Boise, Idaho.
- 2014 Mockaitis K., L-S. Wu, **S. Fuentes-Soriano**, C. Loopstra, & Don Gilbert. Gene expression in *Pinus taeda*, the largest reference genome to date: sequencing, assembly, and classification of the loblolly pine transcriptome. *15th Annual Advances in Genome Biology and Technology meeting*. Marco Island, Florida.
- 2014 Mockaitis K., L-S. Wu, C. Loopstra, **S. Fuentes-Soriano**, & Don Gilbert. Gene Expression in Conifers Revealed on a Comprehensive Scale: Sequencing, Assembly and Classification of the Loblolly Pine Transcriptome. *Plant and Animal Genome XXII International conference*. San Diego, California.
- 2014 **Fuentes-Soriano, S.**, C. Loopstra, & K. Mockaitis. Phylogenetic analysis and diversity of the MADS-box gene family in loblolly pine (*Pinus taeda*). *XXII Plant and Animal Genome international conference*. San Diego, California.
- 2013 **Fuentes-Soriano, S.**, C. Loopstra, J. Wegrzyn, & K. Mockaitis. Building references for functional genomics of conifer development: deep sequencing and comparative gene expression in reproductive tissues and seeds of loblolly pine. *XXI Plant and Animal Genome international conference*. San Diego, California.
- 2011 **Fuentes-Soriano, S.** Patterns of trait evolution within the tribe Physarieae (Brassicaceae): changes in morphology. *Botany 2011*. Saint Louis, Missouri.
- 2011 Celis Pacheco, M. & **S. Fuentes-Soriano**. Evolution of pollen morphology in Tigridaeae (Iridaceae) in a new molecular phylogenetic context. *Botany 2011*. Saint Louis, Missouri.
- 2011 Ortíz R. C. & **S. Fuentes-Soriano**. Evaluating the phylogenetic signal and mode of evolution of continuous traits in Menispermaceae (Ranunculales): an example using endocarp size. *Botany 2011*. Saint Louis, Missouri.
- 2008 **Fuentes-Soriano, S.** & P. Bures. Phylogeny, chromosome number and genome size evolution in Physarieae. *Botany 2008*. Vancouver, Canada.
- 2007 Bures, P., P. Marda, I. Hralova, K. Helanova, **S. Fuentes-Soriano** & P. Jana. Is GC-content correlated with genome size in plants? *Plant Genome Horizons: Vistas and Visions*. Kew, England.
- 2007 Bures P., P. Marda, I. Hralova, **S. Fuentes-Soriano**, M. Lysak, R. Epka, K. Helanova, O. Rotreklova, J. Prochazkova, L. Uradni & J. Krova. GC Content in plant genomes. *Analytical Cytometry IV meeting*. Brno, Czech Republic.

Advancement of pedagogy. Educational lessons created and delivered for K-12 teachers and students from Public School District in the Las Cruces, New Mexico area.

- 2021 **Fuentes-Soriano, S.**, Z. S. Rogers, R. Szczytko, & S. Bestelmeyer. In: Asombro for Science Education (Ed.), *Plant Traits: Learning from Herbarium Collections*, Las Cruces, New Mexico. <https://asombro.org>
- 2020 **Fuentes-Soriano, S.**, Z. S. Rogers, K. Steinberg, A. Miller, & S. Bestelmeyer. In: Asombro Institute for Science Education (Ed.). *Creosote Bush Genetics: Do these genes make me look big?* Las Cruces, New Mexico, <https://asombro.org>
- 2020 **Fuentes-Soriano, S.**, Z. S. Rogers, R. Szczytko, & S. Bestelmeyer. In: Asombro for Science Education (Ed.). *A Teacher's Guide to the Desert's Fascinating Flora*, Las Cruces, New Mexico: Asombro Institute for Science Education. <https://asombro.org/>
- 2018 **Fuentes-Soriano, S.**, Z. S. Rogers, R. Szczytko, & S. Bestelmeyer. In: Asombro for Science Education (Ed.), *Structure and function of plants*, Las Cruces, New Mexico: Asombro for Science Educations. <https://asombro.org>

TEACHING

Graduate courses

- 2017–present RGSC 550 Special Research Programs: Graduate independent mentored research projects on topics including taxonomy, population speciation, conservation biology, restoration ecology, and crop development.
- 2017–present RGSC 598 Practicum: Linking herbarium specimens and the data they hold into pressing research questions: merging ecological seedling metadata into the emerging NMSU seedling herbarium collection.
- 2017–present RGSC 599 Master's Thesis

Undergraduate courses

- 2022 RGSC 357. Grass Taxonomy and Identification (Lecture and two lab sections).
- 2017–present RGSC 448 M03 Special Topics: Undergraduate independent mentored research projects on topics including taxonomy, population speciation, conservation biology, restoration ecology, and crop development.
- 2017–present RGSC 448 M05 Special Topics: Plant identification in rangelands. NMSU plant ID team.

Guest Lectures

- 2021 Workshop, Audience: Internal to New Mexico State University, Animal Range and Sciences - Rangeland Plants Identification team, (Coach: 7 participants).
- 2021 Using herbarium genomics to understand the genetic and ecological change in invaded novel environments (Prof. A. Faist, 13 participants).
- 2021 Using herbarium genomics to understand the genetic and ecological change in invaded novel environments (Prof. H. Geli, 12 participants).
- 2021 Introduction to Natural History Collections: NMSU herbarium. Animal and Range Sciences, NMSU (Prof. D. Strickland, 70 participants)
- 2021 Introduction to Natural History Collections - NMSU herbarium. Animal and Range Sciences, NMSU (Prof. A. Ganguli, 8 participants)
- 2021 Measurement indexes of Biodiversity: using herbarium as a source of information. Animal and Range Sciences, NMSU (Prof. D. Strickland, 28 participants)
- 2021 Future approaches to study biodiversity and improve range management. Animal and Range Sciences, NMSU (Prof. A. Faist, 12 participants)
- 2021 Plant diversity Portals: Exploring Costa Rica Vegetation. Biology, Arts & Sciences, NMSU (T. F. Wright, 20 participants)
- 2021 Bioprospecting for novel medicinal resources in herbarium records. Plant and Environmental Sciences, NMSU (Prof. I. Guzman, 40 participants)

- 2020 Introduction to Natural History Collections, resources of the NMSU herbarium, and best plant collection practices. Animal and Range Sciences (Prof. A. Ganguli, 16 participants).
- 2020 Origins of Maize using natural history collections. Animal and Range Sciences, NMSU (Prof. A. Ganguli, 19 participants).
- 2020 Introduction to Natural History Collections: NMSU herbarium. Animal and Range Sciences, NMSU (Prof. D. Strickland, 33 participants).
- 2020 Uses of the New Mexico herbaria specimens in the study of medicinal plants. Plant and Environmental Sciences, NMSU (Prof. I. Guzman, 30 participants)
- 2018 Introduction to Botanical Biodiversity resources at the New Mexico State University herbaria. Plant and Environmental Sciences, NMSU (Prof. R. Gioannini, 7 participants)
- 2018 Principles, functions, history, and uses of the New Mexico herbaria collections and databases. Animal and Range Sciences, NMSU (Prof. A. Ganguli, 23 participants)
- 2018 Introduction to ethnobotanical research using herbarium specimens and other resources at the NMSU herbaria. Anthropology, Arts and Sciences, NMSU (Prof. L. Stanford, 10 participants)
- 2018 Herbarium collection curation methods: best collection and preparation techniques College Assistance Migrant Program 2018 (CAMP) and Plant and Environmental Sciences, NMSU (7 participants)
- 2018 Principles, functions, history, and uses of the New Mexico herbaria collections and databases. Plant and Environmental Sciences, NMSU (Prof. R. Goss, 21 participants)
- 2018 Plant biodiversity: physiological and morphological adaptations through the lenses of herbarium specimens. Biology, Arts and Sciences, NMSU (Prof. D. Bailey, 25 participants)
- 2018 Principles, functions, history, and uses of the New Mexico herbaria collections and databases. Plant and Environmental Sciences, NMSU (Prof. R. Goss, 60 participants)
- 2017 Principles, functions, history, and uses of the New Mexico herbaria collections and databases. Biology, Arts and Sciences, Biology, NMSU (Prof. D. Bailey, 32 participants)
- 2017 Principles, functions, history, and uses of the New Mexico herbaria collections and databases. Plant and Environmental Sciences, NMSU (Prof. I. Guzman, 60 participants)
- 2017 Principles, functions, history, and uses of the New Mexico herbaria collections and databases. Animal and Range Sciences, NMSU (Prof. A. Ganguli, 24 participants)
- 2017 Principles, functions, history, and uses of the New Mexico herbaria collections and databases. Animal and Range Sciences, NMSU (Prof. A. Ganguli, 21 participants)
- 2017 Principles, functions, history, and uses of the New Mexico herbaria collections and databases. College Assistance Migrant Program 2017 (CAMP) and Plant and Environmental Sciences, NMSU (7 participants)
- 2017 Principles, functions, history, and uses of the New Mexico herbaria collections and databases. Plant and Environmental Sciences, NMSU (Prof. I. Guzman, 90 participants)
- 2017 Phylogenetics and classification of grasses. Animal and Range Sciences, NMSU (Prof. A. Ganguli, 30 participants)

MENTORSHIP

Graduate Student Advisor

- 2022 Roming, K. Plant biodiversity seed back genomic structure in La Jornada experimental Range. PhD. NMSU.
- 2021–present Nez T. Germination strategies on Chihuahuan Desert *Sporobolus* dropseed grass species Proposal, M.Sc. NMSU
- 2020–present Funk M. Comparing landscape impacts of Oryx in the Chihuahuan Desert Rangeland Research Center. M.Sc., NMSU
- 2020–present Mancillas M. Distribution responses of Desert Vegetation to climate change. M. Sc. NMSU

Graduate Student Thesis Committees

- 2020–present Berry A. Mulching and water retention effects on seedling success in the Chihuahuan Desert Proposal. M.Sc. NMSU

- 2020–2022 Turk T. Connectivity and seed availability: the role of seeds in dryland state transitions. M.Sc. NMSU
- 2020–2021 Meadors S. Effects of hydrogels on ecological restoration of dryland vegetation. M.Sc. NMSU

Mentoring of International Visiting Graduate Students

- 2021 Muriel S. Development of the first Lichen collection from the gypsum habitats of New Mexico. Ph.D. candidate. Universidad Rey San Carlos, Spain.
- 2015 Barcelos B. Transcriptomic analysis of goat testis. PhD candidate. Prairie View Texas A&M, Texas.

Undergraduates with independent research projects

- 2021 Johnson R. Internship - Herbarium genomics and bioinformatics. The College of Wooster, Oklahoma.
- 2021 Lopez J. Internship - Plant historical ecology. Undergraduate Student, Fish, Wildlife and Conservation, NMSU, New Mexico.
- 2021 Ramirez Sarah. The more the merrier? Bioprospecting the bitterness of cytogenetic variants from creosote (*Larrea tridentata* (DC.) Coville, Zygophyllaceae) in the Sonoran and Chihuahuan desert, Plant and Environmental Sciences, Alliance for Minority (AMP) participation award, NMSU, New Mexico.
- 2020 Hooper Adam. Bioprospecting Medicinal Compounds from Sonoran and Chihuahuan Creosote Bush, Plant and Environmental Sciences, Howard Hughes Medical Institute award (NMSU-HHMI), NMSU, New Mexico.
- 2020 Ramirez Sarah. Seedling germination of common desert dropseed species (*Sporobolus contractus* (Torr.) A. Gray and *S. flexuosus* (Thurb. ex Vasey) Rydb) from the Chihuahuan Desert, Plant and Environmental Sciences, Southwest Natural Resource Career Track Program (SWNRCT), NMSU, New Mexico.
- 2020 Stott Jade. Insights on the Potential Psychological Benefits of Peyote, *Lophophora williamsii* (Cactaceae), Plant and Environmental Sciences, NMSU, New Mexico.
- 2018 Ward Darrel. Herbarium curation: bioinformatic foundations for the museum artefacts, Biology, NMSU, New Mexico.
- 2018 Harpold Trystan. Natives vs. Exotics: Reducing non-native plant species in urban landscapes of Southern New Mexico, Fish, Wildlife and Conservation Ecology, NMSU, New Mexico.
- 2018 Battista Chloe. I Seed What You Did There – Exploring the Seeds of Success Program in the NMC Herbarium, Fish, Wildlife and Conservation Ecology, NMSU. Native Plant Society of New Mexico award, New Mexico.
- 2018 Gemoets Chloe. Scientific plant checklist of Sierra de la Uvas Mountains, Organ Mountains Desert Peaks National Monument, Fish, Wildlife and Conservation Ecology, BLM Research Summer Internship funded, NMSU, New Mexico.
- 2018 Lovato Xavier. Cochiti Pueblo Way of Appreciating Plant Uses and Life, Range Sciences, Southwest Natural Resource Career Track Program award (SWNRCT), NMSU, New Mexico.
- 2018 Manford Michael. Retracing the steps of Elmer Wooton and his botanical journey through the biomes of the Organ Mountains: An historical-ecological framework for evaluating environmental change, Fish, Wildlife and Conservation Ecology. Undergraduate Research Apprenticeship Program award (URAP), NMSU, New Mexico.
- 2017 Watts Jessica. "Gene expression in developing goat testes: Identification of a caprine spermatogenesis transcriptome", Cooperative Agricultural Research Center, Prairie View Texas A&M University. Won 2nd place for the best student paper, Honorable mention at the Undergraduate Research Symposium iRISE-UP for presentation and scientific merit of her undergraduate research. Prairie View, Texas.

- 2016 Srivastava, Abhinav R. Gene marker discovery and origins of sweet potato by analyzing transcriptomic data. Prairie View Texas A&M University, Prairie View, Texas.
- 2013–2015 Provided training and supervision to undergraduate students associated to the Keithanne Mockaitis Lab. Department of Biology. Indiana University
- 1996–2000 Provided training and supervision to undergraduate students in the Scanning Electron Microscopy Lab. **S. Fuentes-Soriano (PI)**, National Herbarium (MEXU), Autonomous National University of Mexico.

Workshops

- 2022 Workshop leader, National Science Foundation – Fundamental of Genomics and High throughput Sequencing Technologies (6 participants).
- 2022 Workshop leader, National Science Foundation - Bio-AFM for Life Science and Soft Matter Research and Research Training in New Mexico. ACES & Art and Sciences, NMSU (17 participants).
- 2021 Workshop leader and instructor, National Science Foundation - Biodiversity Literacy in Undergraduate Education. UNM, Albuquerque, New Mexico (56 participants).
- 2021 Workshop organizer and co-instructor, Hidden nature - How to identify Lichens, NMSU herbaria & PES, ACES, NMSU, New Mexico (23 participants)
- 2018–present Herbarium undergraduate student volunteering training program leader and instructor, NMSU Herbaria, Las Cruces, New Mexico (20 participants).
- 2014 Workshop leader and instructor, Genomics in July: An Introduction to Computing for Genomic Discovery and Analysis using NGS Data. Department of Biology and National Center for Genome Analysis Support Indiana University, Indiana (30 participants).

ACADEMIC SERVICE

- 2021–2022 Professional Committee member and Conference organizer. Society of Rangeland Management.
- 2021 Professional Committee member of the National Science Foundation Biodiversity Literacy in Undergraduate Education (BLUE) program.
- 2021–present Professional Committee member of the European Union Commission funded program GYPWORLD.
- 2020– present Participant, USDA-National Institute of Food and Agriculture, Hispanic Serving Institutions Program.
- 2020– present Participant, Animal and Range Sciences Research, Scholarship, and Creative Activities Committee.
- 2017–present Participant, Range Sciences Department Committee.
- 2017–present Participant, NMSU Museum Collections Committee.
- 2017–present Participant, Animal and Range Sciences Event Committee.
- 2017–present Go Bond Range Sciences Committee.

Peer-reviewed Journal Reviewer

- 2019–present PhytoKeys Journal. Sofia, Bulgaria.
- 2019–present Botanical Journal of the Linnean Society. London, England.
- 2011–present Annals of the Missouri Botanical Garden Journal, Saint Louis, Missouri.
- 2011–present Applications in Plant Sciences Journal, Saint Louis, Missouri.
- 2011–present NOVON, Saint Louis, Missouri.
- 2010–present Journal of the Botanical Research Institute of Texas.

Invited grant-review panelist

- 2019–2022 National Science Foundation
- 2019–2022 American Society of Plant Taxonomists

Society memberships: American Society of Plant Taxonomists, International Association for Plant Taxonomy, Botanical Society of America, Society of Herbarium Curators, Society for the Preservation of Natural History Collections, Society of Rangeland Management, Society for the Advancement of Chicanos/Hispanics and Native Americans in Sciences, Native Plant Society of New Mexico

Research support: Scientific photomicrographs produced during my six year-tenure as a senior scanning electron Microscopist, were published in 25+ Botanical and Zoological journals (e.g., American Journal of Botany, Systematic Botany, Grana, Novon, Brittonia, Anales del Instituto de Biología, Polibotánica, Acta Botánica Mexicana, Systematic Parasitology) and graduate and undergraduate theses.

SELECTED SEMINARS & PRESENTATIONS (undergraduate advisee*)

- 2022 Mancillas, M.**, Prihodko, L. & **Fuentes-Soriano, S.** Back to the Future: Using Historical Records to Assess Plant Community Shifts Along an Elevational Gradients in a New Mexico Sky Island. *Society for the Management Annual Meeting*. Albuquerque, New Mexico
- 2022 Funk, M.**, A. R. Cox, L. C. Bender, M. M. McIntosh, A. F. Cibils, S.A. Spiegel, R. E. Estell & **Fuentes-Soriano S.** Oryx (*Oryx gazella gazella*) occupancy patterns in a long-term grazing study in the Chihuahuan Desert of New Mexico. *Society for the Management Annual Meeting*. Albuquerque, New Mexico
- 2021 Mancillas, M.**, Lopez, J.*, Juanico, C.*, Prihodko, L. & **Fuentes-Soriano, S.** Back to the Future: Using Historical Records to Assess Plant Community Shifts Along Elevational Gradients in the Organ Mountains Sky Islands. Research and Creativity Week 2021, NMSU, New Mexico.
- 2021 Nez, T.**, Faist, A. M. & **Fuentes-Soriano, S.** The quest for sprouting common desert dropseed species (*Sporobolus* R. Rb., Poaceae) from the Chihuahuan Desert. *Research and Creativity Week 2021*, NMSU, Virtual.
- 2021 Mancillas, M.**, Lopez, J.*, Prihodko, L. & **Fuentes-Soriano, S.** *Blast from the Past: Organ Mountain historical ecology*. Native Plant Society of New Mexico 2021 Annual Conference: People and Native Plants a Journey Through Time, Native Plant Society of New Mexico, Alamogordo, New Mexico.
- 2021 Lopez, J.*, Mancillas, M.**, Rogers, Z. S. & **Fuentes-Soriano, S.** Bringing Order to Nature: The Making of a Historical and Current Plant List from the Organ Mountains, NM. *Native Plant Society of New Mexico 2021 Annual Conference: People and Native Plants a Journey Through Time*. Native Plant Society of New Mexico, Alamogordo, New Mexico.
- 2021 **Fuentes-Soriano, S.** A native abroad: The spread of camphorweed into the Holy Land (*Heterotheca subaxillaris*). *Consortium for Plant Invasion Genomics 2021 Annual Conference*, University of Louisiana at Lafayette, Lafayette, Louisiana.
- 2021 Johnson, R.* & **Fuentes-Soriano, S.** It's a Morphological Mess! Uncovering parental genomic sources of camphor weed in Israel. *Consortium for Plant Invasion Genomics 2021 Annual Conference*. University of Louisiana at Lafayette, Lafayette, Louisiana,
- 2021 Ramirez S. *, A. Faist, & **S. Fuentes-Soriano**. Seedling germination of common desert dropseed species (*Sporobolus contractus* (Torr.) A. Gray and *S. flexuosus* (Thurb. ex Vasey) Rydb) from the Chihuahuan Desert. Undergraduate Research and Creative Arts Symposium, New Mexico State University, Las Cruces, New Mexico.
- 2021 Ramirez, S.* & **S. Fuentes-Soriano**. Bioprospecting the medicinal chemistry of cytogenetic variants from creosote bush (*Larrea tridentata* (DC.) Coville, Zygophyllaceae) in the Sonoran and Chihuahuan desert. New Mexico AMP, NMSU, New Mexico
- 2021 **Fuentes-Soriano, S.**, & D. Barraza. The Tools for Native Plant Identification: the ultimate detective work! Native Plant Society of New Mexico, Las Cruces Chapter, NMSU herbarium, New Mexico.
- 2021 Ramirez, S.*, S. **Fuentes-Soriano**, & I. Guzman. The more the merrier? Bioprospecting the bitterness of cytogenetic variants from creosote (*Larrea tridentata* (DC.) Coville, Zygophyllaceae)

- in the Sonoran and Chihuahuan desert. Undergraduate Research & Creative Arts Symposium New Mexico State University, Las Cruces, New Mexico.
- 2021 **Fuentes-Soriano, S.**, Scientific contributions on gypsum ecosystems by botanists of the New Mexico State University, II Gypworld Meeting, European Union Commission under the European Union's Horizon 2020 Program, Reggio Calabria, Italy.
- 2021 **Fuentes-Soriano, S.**, L. Prihodko, M. Manford*, & Z. Rogers. Shining a New Light on Elmer Ottis Wootton's Legacy Herbarium and Historical Archive: An Exercise to Increase Student Participation while Promoting Public Engagement. Society for the Preservation of Natural History Collections, Dunedin, New Zealand.
- 2021 M. Manford*, **S. Fuentes-Soriano**, & L. Prihodko. Comparative Botany at Bishop's Cap, Organ Mountains. Discover the College of ACES Open House, College of Agricultural, Consumer and Environmental Sciences, New Mexico State University, Las Cruces, New Mexico.
- 2021 **Fuentes-Soriano, S.**, L. Prihodko, & M. Manford*. Retracing the steps of Elmer Wootton and his botanical journey through the biomes of the Organ Mountains: An historical-ecological framework for evaluating environmental change. 17th Annual University Research Council (URC) Faculty Research & Creative Fair, New Mexico State University, Las Cruces, New Mexico.
- 2020 Hopper A. *, I. Guzman, **S. Fuentes-Soriano**, & S. Ramirez*. Bioprospecting Medicinal Compounds from Sonoran and Chihuahuan Creosote Bush. Undergraduate Research and Creative Arts Symposium New Mexico State University, Las Cruces, New Mexico.
- 2018 **Fuentes-Soriano, S.** Participant coach, Plant ID team competition, Society for Range Management, Sparks, Nevada.
- 2017 **Fuentes-Soriano, S.**, Native Plant Society of New Mexico (Gila chapter), The intriguing and wonderful natural history of uncommon Southwestern Mustards, Native Plant Society of New Mexico- Gila chapter, Western New Mexico University Silver City, New Mexico.
- 2017 **Fuentes-Soriano, S.** The NMSU herbaria and their relationship to sciences and general community," Native Plant Society of New Mexico (El Paso chapter) Las Cruces, New Mexico.
- 2017 **Fuentes-Soriano, S.** A look at the natural history of the Spectacle-pod and other uncommon, related mustards in the Southwest, Native Plant Society of New Mexico (Las Cruces chapter) and NMSU herbaria, Las Cruces, New Mexico.
- 2017 **Fuentes-Soriano, S.** A look at the natural history and character evolution of the Spectacle-pod and closely related mustards in the North American Southwest, Biology, Arts and Sciences, NMSU, Las Cruces, New Mexico.
- 2014 **S. Fuentes-Soriano**. Morphological and evolutionary studies of pollen types employing different microscopy techniques: Scanning Electron Microscopy, Transmission Electron Microscopy and Laser Confocal Microscopy. *1st National Colloquium: La microscopía, una herramienta útil para la identificación de micro y nano estructuras en biomateriales*. CEPOBRI-IPN, Yauatepec Morelos, Mexico.
- 2014 **Fuentes-Soriano S.** Exploring highly diversified gene families in the conifers. *Workshop: Genomics in July: An Introduction to Computing for Genomic Discovery and Analysis using NGS Data*. Indiana University, Department of Biology and National Center for Genome Analysis Support, Bloomington, Indiana.
- 2014 **Fuentes-Soriano S.** & S. Sankaranarayanan*. Blast protocols and other tools for sequence alignments. *Workshop: Genomics in July: An Introduction to Computing for Genomic Discovery and Analysis using NGS Data*. Indiana University, Department of Biology and National Center for Genome Analysis Support. Bloomington, Indiana.

WORKSHOPS AND ADDITIONAL TRAINING

- 2021 Using Digitized Herbarium Data in Research: Applications for Ecology, Phylogenetics, and Biogeography, Botany Meeting 2021, Tucson, Arizona.
- 2021 Speaking Circles: Teaching and Speaking with Ease and Impact, Teaching Academy, NMSU, Las Cruces, New Mexico.
- 2021 Five Tips for Writing Effective Learning Objectives, Teaching Academy, NMSU, Las Cruces, New Mexico.
- 2021 Motivating Students to Increase Learning: Evidence-based Strategies, Teaching Academy, NMSU, Las Cruces, New Mexico.

- 2018 Cultural diversity across the curriculum, Teaching Academy, NMSU, Las Cruces, New Mexico.
- 2018 Educational Material Share Fair, The Biodiversity Literacy in Undergraduate Education Network (BLUE, Ecological Society of America, iDigBio, and the Society for the Preservation of Natural History Collections, Dunedin, New Zealand.
- 2018 Auditing and cleaning of biodiversity data, Society for the Preservation of Natural History Collections, Dunedin, New Zealand.
- 2018 Developing a mechanism to coordinate planning and investment in biodiversity informatics, Society for the Preservation of Natural History Collections, Dunedin, New Zealand.
- 2018 Strategic Planning for Herbaria, iDigBio and Society of Herbarium Curators, Tallahassee, Florida.
- 2018 Excel at teaching - twelve steps to help student learn! Teaching Academy, NMSU, Las Cruces, New Mexico.
- 2018 Strategies for Developing Competitive Proposals, Teaching Academy, NMSU, Las Cruces, New Mexico.
- 2017 Grant Writing Workshop, ACES, NMSU, Las Cruces, New Mexico.
- 2017 Getting It Paid For: Best Practices in Preparing Successful IMLS Grant Applications. Society for the Protection of Natural History Collections. Denver, Colorado.
- 2017 Writing for Successful Journal Publication to Promote Effective Change in Natural History Collections. Society for the Protection of Natural History Collections. Denver, Colorado.
- 2017 Natural History Biodiversity Informatics 101. Society for the Protection of Natural History Collections. Denver, Colorado.
- 2017 One Stop R course, Research Initiative for Scientific Enhancement (RISE), Las Cruces, New Mexico.
- 2017 All about TRIO Programs: Engaging and working with low-income and first-generation students. Teaching Academy, NMSU. Las Cruces, New Mexico.
- 2017 Just teaching, scholarly teaching and education research. Where do you want to be, and how do you get there? Teaching Academy, NMSU. Las Cruces, New Mexico.
- 2017 Teaching and Learning in the STEM disciplines. NMSU. Las Cruces, New Mexico.
- 2017 Food for thought. Sponsors: Santa Fe, NM. Santa Fe Community College Biofuels Center of Excellence, University of Georgia, Iowa State University and NSF. Santa Fe, New Mexico.
- 2016 High performance computing, data analytics, and scientific visualization, and big data analyses. Texas Advanced Computing Center (TACC) Summer Supercomputing Institute. Austin, Texas.
- 2014 DNA Subway: Genomics, DNA Barcoding, and RNA-Seq - Bringing Cutting-Edge Biology into the Classroom. Workshop attendee. Organizers: J. Williams, iPlant Collaborative funded by the National Science Foundation. Botany 2014. Boise, Idaho.
- 2014 A target enrichment method for gathering phylogenetic information from hundreds of loci: an example from the Compositae, a.k.a. Asteraceae. Organizers: J. Mandel, University of Memphis, V. Funk and R. Dikow, Smithsonian Institution, R. Noyes, University of Central Arkansas. Botany 2014. Boise, Idaho.
- 2014 Mass Spectrometry based Proteomics. Donald Danforth Plant Science Center, Saint Louis, Missouri.
- 2014 Laser Capture Microdissection system. Light Microscopy Imaging Center, Indiana University, Bloomington, Indiana.
- 2013 iPlant Genome Annotation, assembly, and RNA-Seq. iPlant Collaborative funded by the National Science Foundation. Virtual.
- 2013 Cyberinfrastructure-enabled Computational Genome Science Laboratory. Indiana University-Bloomington. Indiana.
- 2013 Image Processing and Analysis Workshop. Organizer: Light Microscopy Imaging Center. Indiana University-Bloomington. Indiana University, Bloomington, Indiana.
- 2012 Galaxy for Biologists. National Center for Genome Analysis Support & The Center for Genomics and Bioinformatics. Indiana University, Bloomington, Indiana.
- 2011 Applications of Next-Generation Sequencing in Plants. Botany 2011. Saint Louis, Missouri.
- 2010 An introduction to next-generation sequencing. Botany 2010. Providence, Rhode Island. Organizer: Aaron Liston, Department of Botany and Plant Pathology, Oregon State University, Corvallis, Oregon.
- 2007 Southern blotting and cytogenetic techniques. University of Missouri-Columbia, Columbia, Missouri.

- 2006 Flow cytometry and advanced cytogenetic techniques (incl. chromosome painting techniques). Masaryk University, Brno, Czech Republic and Kew Botanic Gardens, London, England.

COMMUNITY ENGAGEMENT, OUTREACH, & COMMUNICATION

- 2021 Organized and mentored undergraduates attending a STEM related professional development workshop at Albuquerque, New Mexico through the Biodiversity Literacy Undergraduate Education national network program funded by NSF.
- 2020–present Organize and mentored undergraduates participating in NSF REU summer internships funded by the Consortium for Plant Invasion Genomics (CIPING) program education while examining the origins of plant invasiveness using herbarium specimens (36 participants).
- 2018–2020 Organized, co-lead, and promote STEM related education programs to K-12 stakeholders. Las Cruces, New Mexico (Participants: 3 schools, 11 teachers, and 252 students. Las Cruces NM (NSF funded) 5,000 participants)
- 2018–present Organized and lead, via traveling museum exhibits (+6), interactive activities to learn about how the NMSU herbarium supports teaching, public education, and ongoing research at the University. Las Cruces, New Mexico.
- 2018–present Organize and serve as a mentor of STEM program offered to undergraduate students participating in the Alliance for Minority Participation (AMP) NSF program
- 2018–present Organize and serve as a mentor of the Research Experience (SCCORE) NSF program summer program offered to Community College students.
- 2018–present Organize and serve as a mentor of Undergraduates participating in the Research and Extension Experiences program funded by the USDA NIFA.
- 2018–present Organize and serve as a mentor of Undergraduates students participating in the Southwest Natural Resource Career Track Program, USDA founded
- 2018–present Organize and serve as a mentor of Undergraduates students participating in the Natural Resources Conservation Service department, TRIO UPWARD BOUND Bureau of Land Management program
- 2018–present Organize and serve as a mentor of Undergraduates students participating in the College Assistance Migrant program lead by NMSU.
- 2018–present Organized and host outreach, recruitment, and education programs in the annual STEM Ag Career Day – AgAdventures, Las Cruces, New Mexico.
- 2018–2020 Organized and served as a mentor of Undergraduates students participating in the Dream Keepers II Native American youth summer program lead by NMSU
- 2018–2019 Organized and served as a mentor of Undergraduates students participating in the Research Apprenticeship program (URAP) at NMSU.
- 2017–present Organize, lead, and promoted the NMSU herbarium volunteer program to support NMSU curatorial activities. Las Cruces, New Mexico.
- 2017–present Organized and led active learning session about how public can identify plants using traditional and on-line herbarium tools. Las Cruces, New Mexico.
- 2017–present Present, via 30+ herbarium tours, science communication programs highlighting research, education, and societal impact of natural history collections. (+6000 virtual and in person visitors). NMSU herbarium, Las Cruces, New Mexico.

Media Contributions

- 2020 Virtual tour of the herbarium, accessible for students and good for a general audience. <https://youtu.be/8QV4bQR0M1I>
- 2020 Plant science lesson about creosote-bush that the herbarium developed in collaboration with Asombro. This lesson will be delivered in a hybrid approach to 1,800 7th graders from the Las Cruces area. <https://youtu.be/kFWFsnUJ5oo>

OTHER BIBLIOGRAPHICAL INFORMATION

Native Spanish speaker
Fluent in English