

**Dev Paudel**

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University of Florida-Gulf Coast Research and Education Center • Wimauma, FL 33598

**EDUCATION**

- PhD in Agronomy**, University of Florida **2018**
- Dissertation: *Genomic and breeding resources to produce seeded and high biomass interspecific hybrids of napiergrass and pearl millet.*
- MS in Crop Science**, Texas Tech University, Lubbock, TX **2012**
- Thesis: *Evaluating the potential of new testing methods for cotton breeding.*
- BS in Agriculture**, Tribhuvan University, Nepal **2009**
- Conferred with Distinction.

**RESEARCH EXPERIENCE**

- Post-doctoral Associate**, Environmental Horticulture Department **2021 – Present**  
*Gulf Coast Research and Education Center, Wimauma, FL*
- Whole genome sequencing and transcriptomics of blackberry.
  - Genomics of disease resistance in citrus.
  - IsoSeq in citrus.
- Post-doctoral Associate**, Agronomy Department **2019 – 2020**  
*University of Florida, Gainesville, FL*
- G×E interactions for drought stress and persistence in turfgrass.
  - Microbiome evaluation of organic vs. inorganic peanut rhizosphere.
  - Genome wide association studies in dual-purpose cowpea.
  - Genomic selection in alfalfa.
- Research Fellow**, Agronomy Department **2014 – 2018**  
*University of Florida, Gainesville, FL*
- Population genomics of elephant grass (napiergrass) using exome sequencing.
  - Comparative genomics of elephant grass and pearl millet.
  - Constructed elephant grass genetic map using next generation sequencing.
  - Identified Quantitative Trait Loci for flowering time and yield attributes in elephant grass.
  - Introgressed cytoplasmic male sterility into pearl millet.
  - Made interspecific hybrids between pearl millet and elephant grass.
- Research Technician**, Algae for fuel **2012 – 2014**  
*Texas A&M AgriLife Research, Pecos, TX*
- Performed cell culture, maintain, and expand algae mother bank seeds *in vitro*.
  - Monitor, collect, and process samples in lab, green house, and outdoor ponds.
  - Optimized nutrient media for algal biofuel production.
- Research Assistant**, Fiber & Biopolymer Research Institute **2011 – 2012**  
*Texas Tech University, Lubbock, TX*
- Evaluated various methods to measure maturity of cotton fibers.
  - Explored the relationships between different essential fiber quality parameters.
  - Developed new testing protocols for accurate assessment of cotton fiber quality.

**TEACHING EXPERIENCE**

**Instructor:** Applied Bioinformatics in Agriculture (AFU, 2020)  
**Guest Lecture:** AGR6322 Advanced Plant Breeding (Fall 2020)  
 Taught module on Population Genomics  
**Guest Lecture:** AGR5266 Field Plot Techniques (Fall 2019)  
 Taught practical sessions in statistical data analysis  
**Instructor:** Data Carpentry Workshop (Feb 8, 2018)  
**Teaching Assistant:** AGR5266 – Field Plot Techniques (Fall 2017)  
 AGR3303 – Genetics (Summer 2017)  
 AGR5266 – Field Plot Techniques (Fall 2016)  
**Trainer:** Introduction to R, University of Florida, NSA-UF (2017)

**COMPETITIVE GRANTS**

- **Southern region Sustainable Agriculture Research & Education,** \$16,497  
 (with Wang J), *Elucidating the effects of organic vs. conventional cropping practice and rhizobia inoculation on peanut yield and rhizosphere microbial diversity.* 2018.
- **Graduate School Doctoral Dissertation Award,** UF. 2018. \$9,000
- **William C. and Bertha M. Cornett Fellowship,** CALS, UF. 2018. \$1,500
- **New Frontiers Scholars Award,** Corteva AgriScience (Travel). 2018. \$615
- **Open Tree of Life Travel Award,** AvaTOL (Travel). 2018. \$900
- **William C. and Bertha M. Cornett Fellowship,** CALS, UF. 2017. \$1,500
- **Paul Harris Travel Award,** Agronomy Department, UF. 2017. \$500
- **Summer Institute in Biostatistics,** Washington Univ. (Travel). 2017. \$500
- **Plant Science Symposium** (Corteva & several UF departments). 2017. \$15,000
- **Paul Harris Travel Award,** Agronomy Department, UF. 2016. \$500
- **IPR in Public Plant Breeding Summit** (Travel). 2016. \$500
- **Trellis Fellowship,** UC Davis/USAID Horticulture CRSP program. 2015. \$2,500
- **Open Society Institute, Budapest – Youth Action Fund.** \$1,000  
*Documentary preparation on Mushroom Cultivation Techniques for resource poor farmers.* 2010.
- **Global Future Institute, USA.** *Study on the use of fermented cattle urine as a potential source of fertilizer for cauliflower.* 2009. \$400
- **Global Future Institute, USA.** *Azolla (Azolla pinnata) as an economical and sustainable feed for poultry.* 2008. \$400

**SCHOLARSHIPS / HONORS**

- **Gerald O. Mott Award,** Crop Science Society (2018)
- **Convion Scholar,** American Society of Plant Biologists (2017)
- **Outstanding International Student,** CALS, UF International Center (2016)
- **Graduate Fellow,** University of Florida (2014-2018)
- **Harold and Mary Dregne Fellow,** Texas Tech University (2011/2012)

**INTERNATIONAL SERVICE AND CONTRIBUTIONS**

- Trainer**, Using R for Applied Statistics, Hands on Training (2 weeks) **2015**  
*Tamale Polytechnic Institute, Tamale, Ghana*
- Project funded by UC Davis / USAID Horticulture CRSP
- Trainer**, Project Proposal Management **2015**  
*Kayaba Management Foundation, Tamale, Ghana (1 week)*

**LEADERSHIP AND COMMUNITY INVOLVEMENT**

- Founding President**, UF Plant Science Council **2016/17**
- Organized the first annual DuPont-Pioneer Plant Science Symposium at UF
  - Raised funds (\$15,000+) for the symposium
  - Wrote proposal, invited speakers, and managed logistics of the program
- President**, Nepalese Student Association, UF **2016/17**
- Organized a student led training program to teach programming for data analysis
  - Raised donations for the earthquake survivors in Ecuador
  - Initiated NSA-UF monthly talk series
- Representative**, Agronomy Department in the UF Graduate Student Council **2016/17**
- Student Member**, CALS Graduate Teaching Awards Committee **2016/17**
- Secretary**, Agronomy Graduate Student Association **2016/17**
- Treasurer**, Nepalese Student Association, UF **2015/16**
- Raised funds (\$4,000+) for earthquake survivors in Nepal

**PUBLICATIONS****Journal articles and book chapters** 

(\*undergraduate student under my supervision)

1. **Paudel D**, Dareus R, Rosenwald J, Munoz-Amatriain M, Rios E. 2021. Genome-wide association study reveals candidate genes for flowering time in cowpea (*Vigna unguiculata* [L.] Walp). *Frontiers in Genetics*.
2. Dareus R, Acharya J, **Paudel D**, Gouveia BT, Lopes de Souza C, Chase C, DiGennaro P, Rios EF. 2021. Phenotypic characterization of the UC-Riverside cowpea mini-core collection for phenological and agronomic traits in Florida. *Crop Science*.
3. **Paudel D**, Liu F, Wang L, Crook M, Maya S\*, Peng Z, Kelley K, Ane JM, Wang J. 2020. Isolation, characterization, and complete genome sequence of a *Bradyrhizobium* strain Lb8 from nodules of peanut utilizing crack entry infection. *Frontiers in Microbiology*.
4. Peng Z, Zhao Z, Clevenger JP, **Paudel D**, Ozias-Akins P, Wang J. 2020. Comparison of SNP calling pipelines and NGS platforms to predict the genomic regions harboring candidate genes for nodulation in cultivated peanut. *Frontiers in Genetics*.
5. **Paudel D**, Dhakal S, Parajuli S, Adhikari L, Peng Z, You Q, Shahi D, Avci M, Makaju S, Kannan B. 2020. Use of quantitative trait loci to develop stress tolerance in plants. In

[Plant Life under Changing Environment](#). Elsevier.

6. Hanson E\*, Zhou H, Tallury SP, Yang X, **Paudel D**, Tillman B, Wang J. 2020. Identifying chromosomal introgressions from a wild species *Arachis diogenes* into interspecific peanut hybrids. [Plant Breeding](#) 139: 969–976.
7. Yang X, Song J, Todd J, Peng Z, **Paudel DR**, Luo Z, Ma X, You Q, Hanson E, Zhao Z, Zhao Y, Zhang J, Ming R, Wang J. 2018. Target enrichment sequencing of 307 germplasm accessions identified ancestry of ancient and modern hybrids and signatures of adaptation and selection in sugarcane (*Saccharum* spp.), a “sweet” crop with “bitter” genomes. [Plant Biotechnology Journal](#): 1–11.
8. **Paudel DR**, Kannan B, Yang X, Harris-Shultz KR, Thudi M, Varshney RK, Altpeter F, Wang J. 2018. Surveying the genome and constructing a high-density genetic map of napiergrass (*Cenchrus purpureus* Schumach). [Scientific Reports](#) 8: 1–11.
9. Yang X, Song J, You Q, **Paudel DR**, Zhang J, Wang J. 2017. Mining sequence variations in representative polyploid sugarcane germplasm accessions. [BMC Genomics](#) 18: 1–16.
10. Varshney RK, Shi C, ... [18 authors] ... **Paudel DR**, ... [42 authors] ..., Vigouroux Y, Xu X. 2017. Pearl millet genome sequence provides a resource to improve agronomic traits in arid environments. [Nature Biotechnology](#) 35: 969–976.
11. Tian W, **Paudel DR**, Vendrame W, Wang J. 2017. Enriching genomic resources and marker development from transcript sequences of *Jatropha curcas* for microgravity studies. [International Journal of Genomics](#) 2017.
12. Peng Z, Liu F, Wang L, Zhou H, **Paudel DR**, Tan L, Maku J, Gallo M, Wang J. 2017a. Transcriptome profiles reveal gene regulation of peanut (*Arachis hypogaea* L.) nodulation. [Scientific Reports](#) 7.
13. Peng Z, Fan W\*, Wang L, **Paudel DR**, Leventini D, Tillman BL, Wang J. 2017b. Target enrichment sequencing in cultivated peanut (*Arachis hypogaea* L.) using probes designed from transcript sequences. [Molecular Genetics and Genomics](#): 1–11.
14. Adhikari L, Razar RM, **Paudel DR**, Ding R, Missaoui AM. 2017. Insights into seasonal dormancy of perennial herbaceous forages. [American Journal of Plant Sciences](#) 08: 2650–2680.
15. **Paudel DR**, Dhakal P, Timsina KP, Dahal A. 2015. Azolla as an economic substitute to soybean based feed for poultry. [International Journal of Applied Sciences and Biotechnology](#) 3: 619.
16. Dhakal P, **Paudel DR**, Baral DR. 2015. Inventory of non-timber forest products in western Nepal and strategies for sustainable management. [International Journal of Environment](#) 4: 130–139.
17. **Paudel DR**, Hequet EF, Abidi N. 2013. Evaluation of cotton fiber maturity measurements. [Industrial Crops and Products](#) 45: 435–441.