

# Simon Uribe-Convers

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Genomic, data, and evolutionary scientist with over 10 years of research, data analysis, and laboratory experience. My main interests lie in distilling information from complex data using bioinformatics to find impactful solutions.

## PROFESSIONAL SKILLS

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**Data Analysis:** genomics | bioinformatics | Python | UNIX | R | Jupyter Lab | Markdown | Git | next-generation sequencing (NGS) | data visualization | reproducibility | reporting | genomic assemblies | macroevolution | phylogenomics.

**Bioinformatics:** next-generation sequencing (NGS): FastQC, BLAST/BLAT, samtools, VCFtools, GATK, CD-HIT-EST, SPAdes, Bowtie2, Trinity, Trimmomatic | phylogenetics/phylogenomics: RAxML, MrBayes, BEAST, PAUP\*, PartitionFinder2, MAFFT, ASTRAL, SVDquartets, Geneious, STRUCTURE | macroevolution | population genetics.

**Molecular Laboratory:** high-throughput sequencing (HTS) | DNA extraction | genomic library prep | primer design | PCR | cloning | microfluidic PCR | target enrichment sequence capture | RADSeq | Genotyping by sequencing | shotgun sequencing | transcriptomics | quality control | Sanger and Illumina MiSeq/HiSeq sequencing.

**Management:** mentoring | supervising personnel | laboratory management | scientific writing | experimental design | grant writing | budget management | international and multidisciplinary collaboration | public speaking.

**Languages:** Spanish (native) | English (fluent) | German (fluent).

## EDUCATION

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**Ph.D. Biology** | University of Idaho, Moscow, ID, USA 2009–2014

**B.Sc. Biology (Honors Thesis)** | Universidad de los Andes, Bogota, Colombia 2001–2008

## WORK EXPERIENCE

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**Phylagen, Inc.** San Francisco, CA  
*Data Scientist* February 2018–Present

- Built applications in Python to analyze and visualize large amounts of HTS data.
- Processed and reported QC of sequencing runs in a production setting.
- Lead projects to transfer technology from R&D into production.
- Designed and managed large metagenomic projects.

**University of Michigan** Ann Arbor, MI  
*Postdoctoral Research Fellow* July 2017–Present

- Developed bioinformatic pipelines in Python to analyze large genomic and phylogenomic datasets.
- Constructed the largest phylogeny to date for all fungi with publicly available sequence data (~30,000 species.)
- Mined online repositories (e.g., GenBank) for publicly available data with Python scripts.
- Increased the performance of large and complex analyses by optimizing code.

**University of Missouri – St. Louis** St. Louis, MO  
*Postdoctoral Research Fellow* October 2015–July 2017

- Led experiments and analyses of multiple types of NGS data, including shotgun libraries, target enrichment sequence capture, and transcriptomes.
- Increased the amount of data generated 10-fold for a fraction of the cost.
- Designed, built, and executed analytic models and statistical analyses performed for a number of diverse projects and data types.
- Supervised and mentored personnel working in molecular laboratory and greenhouse projects.
- Formulated and wrote funding proposals for current and future projects.

**Missouri Botanical Garden** St. Louis, MO  
*Research Associate* October 2015–July 2017

- Investigated the genomic differences among cultivated and wild species of grapes to identify novel genetic variation for future breeding efforts.
- Formulated and tested analytical hypotheses for the project.
- Led bioinformatic and evolutionary analyses of genotyping by sequencing data with thousands of variant sites.
- Authored a scientific publication summarizing the final results.

**University of Idaho**

Moscow, ID

Graduate Research Assistant

August 2009–August 2014

- Developed and published two novel approaches to generate large genomic datasets quickly and cost effectively using either microfluidic PCR or long-PCR. These methods are now widely used in the field of phylogenomics.
- Led a wide range of projects in genomics, phylogenetics, macroevolution, and fieldwork.
- Authored several publications and disseminated the results in presentations at international conferences.
- Formulated and authored grant proposals that completely funded my Ph.D.
- Taught undergraduates (teaching assistant) how to identify over 200 species of trees for four years.

**Johannes Gutenberg University**

Mainz, Germany

Research Assistant

August 2004–July 2005

- Designed and performed molecular experiments with AFLP and Sanger sequence data.
- Studied the phylogenetic and hybridization histories of a group of plants.
- Authored a scientific publication as an undergraduate student.

**ADDITIONAL TRAINING**

Intro to SQL for Data Science, DataCamp	2017
Data Scientist with Python Career, DataCamp (20 courses.)	2017
Python for Genomic Data Science (4 weeks), Coursera.	2017
Learn to Program: The Fundamentals (Python, 7 weeks), Coursera.	2017
Bioconductor for Genomic Data Science (4 weeks), Coursera.	2017
Statistics for Genomic Data Science (4 weeks), Coursera.	2017
R Workshop (5 days), Missouri Botanical Garden, St. Louis, MO, USA.	2016
Programming for Everybody: Getting Started with Python (4 weeks), Coursera.	2015
R Programming (4 weeks), Coursera.	2015
Estimating Species Trees Workshop (3 days), The Ohio State University, Columbus, OH, USA.	2012
Bodega Bay Applied Phylogenetics Workshop (7 days), University of California, Davis, CA, USA	2010

**ADDITIONAL RESEARCH EXPERIENCE**

<b>Stillinger Herbarium Graduate Research Assistant</b>	2009–2012
University of Idaho Stillinger Herbarium, Moscow, ID, USA.	
<b>Undergraduate Research Assistant</b>	2007–2008
Laboratorio de Botánica y Sistemática, Departamento de Ciencias Biológicas Honors thesis at the Universidad de los Andes, Bogotá, Colombia.	
<b>Invited Researcher</b>	Summer 2008
Mathews Lab, The Arnold Arboretum of Harvard University, Cambridge, MA, USA. Research on the evolutionary history of the plant genera <i>Bartsia</i> and <i>Castilleja</i> (Orobanchaceae), with a close focus on the Colombian species. Project based on Sanger sequencing.	
<b>Research Intern</b>	Summer 2008
Litt Lab, Pfizer Plant Research Laboratory, New York Botanical Garden, New York, NY, USA. Research internship working on the phylogeny of the plant family Vochysiaceae, successfully extracting and sequencing DNA from old herbarium specimens (some older than 60 years.)	

**PUBLICATIONS (\*MENTORED UNDERGRADUATE STUDENT CO-AUTHOR)****Peer Reviewed Papers Published or in Press**

- Jacobs SJ, Kristofferson C\*, **Uribe-Convers S**, Latvis M, Tank DC. 2018. Incongruence in molecular species delimitation schemes: what to do when adding more data is difficult. *Molecular Ecology*.
- McKain MR, Johnson MG, **Uribe-Convers S**, Eaton D, Yang Y. 2018. Practical considerations for plant phylogenomics. *Applications in Plant Sciences* 6(3): e1038. \*All authors contributed equally.
- Klein, LL, Miller AJ, Ciotir C, Hyma K, **Uribe-Convers S**, Londo J. 2018. High-throughput sequencing data clarify evolutionary relationships among North American *Vitis* species and improve identification in USDA *Vitis* germplasm collections. *American Journal of Botany* 105(2): 215–226.
- Latvis M, Mortimer SME, Morales-Briones DF, Torpey S\*, **Uribe-Convers S**, Jacobs SJ, Mathews S, Tank DC. 2017. Primers for *Castilleja* and their Utility Across Orobanchaceae: I. Chloroplast Primers. *Applications in Plant Sciences* 5 (9): 1700020.

- Uribe-Convers S**, Carlsen M, Lagomarsino LP, Muchhala N. 2017. Phylogenetic relationships of *Burmeistera* (Campanulaceae): Combining whole plastome with targeted loci data to improve resolution in a recent radiation. *Molecular Phylogenetics and Evolution* 107: 551–563.
- Uribe-Convers S** and Tank D.C. 2016. Phylogenetic Revision of the genus *Bartsia* (Orobanchaceae), disjunct distributions correlate to independent lineages. *Systematic Botany* 41(3): 672–684.
- Uribe-Convers S**, Settles ML, Tank DC. 2016. A phylogenomic approach based on PCR target enrichment and high throughput sequencing: resolving the diversity within the South American species of *Bartsia* L. (Orobanchaceae). *PLoS ONE*. 11(2): e0148203. doi:10.1371/journal.pone.0148203.
- Uribe-Convers S** and Tank DC. 2015. Shifts in diversification rates linked to biogeographic movement into new areas: an example of disparate continental distributions and a recent radiation in the Andes. *American Journal of Botany* 102:1854–1869. doi:10.3732/ajb.1500229. Editor's choice for the 'Highlights Section' <http://goo.gl/tFnqJR>.
- Nürk NM, **Uribe-Convers S**, Gehrke B, Tank DC, Blattner F. 2015. Oligocene niche shift, Miocene diversification – cold tolerance and accelerated speciation rates in the St. John's Worts (*Hypericum*, Hypericaceae). *BMC Evolutionary Biology* 15:80. **Highly Accessed**.
- Uribe-Convers S**, Duke JR\*, Moore JM, Tank DC. 2014. A long-PCR based method for chloroplast genome enrichment and phylogenomics in angiosperms. *Applications in Plant Sciences* 2: 1300063.  
Featured in EurekaAlert! (<http://goo.gl/C4rAeh>) and in ScienceDaily (<http://goo.gl/zdFuZ4>.)
- Goldberg CS, Tank DC, **Uribe-Convers S**, Bosworth WR, Marx HH, Waits LP. 2012. Species designation of the Bruneau Dune tiger beetle (*Cicindela waynei*) is supported by phylogenetic analysis of mitochondrial DNA sequence data. *Conservation Genetics* 13: 373–380.
- Kadereit JW, **Uribe-Convers S**, Westberg E, Comes HP. 2006. Reciprocal hybridization at different times between *S. flavus* and *S. glaucus* gave rise to two polyploid species in North Africa and Southwest Asia. *New Phytologist* 169: 431–441.

#### In Preparation or in Review

- Randle CP and **Uribe-Convers S**. *Bartsia* (Orobanchaceae). *In Review*. For: Flora of North America Editorial Committee, eds. 1993+. Flora of North America North of Mexico. 19+ vols. New York and Oxford. Vol. 17.

#### Pre-Prints (Not Peer Reviewed)

- Uribe-Convers S**, Settles ML, Tank DC. 2015. A targeted subgenomic approach for phylogenomics based on microfluidic PCR and high throughput sequencing. bioRxiv 021246; doi: <http://dx.doi.org/10.1101/021246>.
- Uribe-Convers S** and Tank DC. 2015. Shifts in diversification rates linked to biogeographic movement into new areas, an example of disparate continental distributions and a recent radiation in the Andes. bioRxiv 019554; doi: <http://dx.doi.org/10.1101/019554>.

#### Other Publications

- Uribe-Convers S**. 2014. Phylogenomic insights into the radiation of an Andean group of plants. Ph.D. Dissertation, University of Idaho, Moscow, Idaho, USA. Available: <http://goo.gl/XXvqf6>.
- Uribe-Convers S**. 2008. Molecular Phylogeny for the Colombian species of páramo, for the genera *Bartsia* and *Castilleja* (Orobanchaceae). Honors Thesis B.Sc. Biology, Universidad de los Andes, Bogotá, Colombia. Available: <https://goo.gl/o2rXTK>.

#### DATASETS

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- Uribe-Convers S**, Settles ML, Tank DC (2016) Data from: A phylogenomic approach based on PCR target enrichment and high throughput sequencing: resolving the diversity within the South American species of *Bartsia* (Orobanchaceae). Dryad Digital Repository <http://dx.doi.org/10.5061/dryad.fh592>.
- Uribe-Convers S** and Tank D.C. (2015) Data from: Shifts in diversification rates linked to biogeographic movement into new areas: an example of disparate continental distributions and a recent radiation in the Andes. *American Journal of Botany* <http://dx.doi.org/10.5061/dryad.7v1f8>.
- Nürk NM, **Uribe-Convers S**, Gehrke B, Tank DC, Blattner FR (2015) Data from: Oligocene niche shift, Miocene diversification – cold tolerance and accelerated speciation rates in the St. John's Worts (*Hypericum*, Hypericaceae). *BMC Evolutionary Biology* <http://dx.doi.org/10.5061/dryad.4tm8j>.
- Uribe-Convers S**, Duke JR, Moore MJ, Tank DC (2014) Data from: A long PCR based approach for DNA enrichment prior to next-generation sequencing for systematic studies. *Applications in Plant Sciences* <http://dx.doi.org/10.5061/dryad.kc75n>.

**GRANTS (AMOUNTS IN U.S. DOLLARS)**

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\$736,606	NSF DEB, Phylogenetic Systematics (1754802), "Quantifying the roles of pollination and post-pollination barriers in angiosperm speciation: a case study of the diverse Neotropical genus <i>Burmeistera</i> (Campanulaceae)."	2018-2020
\$14,980	NSF DEB, Phylogenetic Systematics, Doctoral Dissertation Improvement Grant "Dissertation Research: Investigating the accumulation of evidence for speciation: species delimitation in a rapid and recent radiation."	2012-2015
\$518	Graduate and Professional Student Association Travel Grant, University of Idaho	2014
\$335	American Society of Plant Taxonomist Travel Grant, Botany 2014	2014
\$10,750	University of Idaho, Stillinger Trust, Herbarium Collecting Expeditions "Stillinger Herbarium Expedition: Completing sampling of three taxonomically diverse genera in Andean South America: facilitating comparative molecular systematic research."	2013
\$700	Graduate and Professional Student Association Travel Grant, University of Idaho	2013
\$150,000	University of Idaho Stillinger Herbarium Graduate Research Assistant Fellowship	2009-2012
\$10,965	University of Idaho, Stillinger Trust, Herbarium Collecting Expeditions "Stillinger Herbarium Expedition: Completing sampling of three taxonomically diverse genera in Andean South America: facilitating comparative molecular systematic research"	2012
\$792	Graduate and Professional Student Association Travel Grant, University of Idaho	2012
\$490	Graduate and Professional Student Association Travel Grant, University of Idaho	2012
\$6,496	University of Idaho, Stillinger Trust, Herbarium Collecting Expeditions "Stillinger Herbarium Expedition: Phylogenetic analysis of <i>Bartsia</i> L. (Orobanchaceae)"	2011
\$4,914	University of Idaho Student Grant Program "Inferring patterns of biodiversity in a young Andean ecosystem; developing a novel high throughput sequencing approach for phylogenomic studies in <i>Bartsia</i> (Orobanchaceae)"	2011
\$500	Botanical Society of America Graduate Student Research Award 2011 "Inferring patterns of biodiversity in a young Andean ecosystem; developing a novel high throughput sequencing approach for phylogenomic studies in <i>Bartsia</i> (Orobanchaceae.)"	2011
\$490	Graduate and Professional Student Association Travel Grant, University of Idaho	2010
\$335	American Society of Plant Taxonomist Travel Grant, Botany 2010	2010
\$1,800	Society of Systematic Biologists Graduate Student Research Award "Phylogenetic analysis of the genus <i>Bartsia</i> L. (Orobanchaceae): increasing sampling of a mostly Andean genus"	2010
\$750	American Society of Plant Taxonomists Graduate Student Research Award "Phylogenetic analysis of the genus <i>Bartsia</i> L. (Orobanchaceae): increasing sampling of a mostly Andean genus"	2010

**TEACHING EXPERIENCE**

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<b>Guest Lecture</b> , "Introduction to Genomics and Phylogenetics", Advanced Evolution University of Missouri – St. Louis, St. Louis, MO, USA.	2017
<b>Teaching Assistant, Dendrology</b> . College of Natural Resources University of Idaho, Moscow, ID, USA	2010-2013
<b>Guest Lecture</b> , "Using phylogenies to understand biodiversity." Introduction to Ecology and Conservation Biology, University of Idaho, Moscow, ID, USA.	2011
<b>Guest Lecture</b> , "What has happened to Scrophulariaceae?" Systematic Botany University of Idaho, Moscow, ID, USA.	2010
<b>Teaching Assistant, Organismal Biology</b> Departamento de Ciencias Biológicas Universidad de los Andes, Bogotá, Colombia.	2008
<b>Teaching Assistant, Botany</b> Departamento de Ciencias Biológicas Universidad de los Andes, Bogotá Colombia.	2005
<b>Teaching Assistant, Cell Biology</b> Departamento de Ciencias Biológicas Universidad de los Andes, Bogotá Colombia.	2002

**MENTORING EXPERIENCE**

I mentored multiple undergraduate students during my graduate career, training them in molecular laboratory techniques and basic phylogenetic analyses. Some of these are: Samuel Torpey (2014), Jordin Jacobs (2013), Casey

Kristofferson (2012), Shaylee Martling (2011), and Justin Duke (2009–2010). Justin Duke, Casey Kristofferson, and Samuel Torpey are co-authors in one or more publications. Additionally, every time I taught the Dendrology laboratory course at the University of Idaho, I mentored four undergraduate students as “Peer-TAs.” These students took the course the year before and used this opportunity to revise the material and to gain teaching experience. Finally, as a postdoctoral researcher, I have mentored graduate (Camilo Calderón-Acevedo [2015–2017], Diana Gamba [2016]) and undergraduate students (Ruth Abraha [2016]) in phylogenomic and bioinformatic practices, as well as hand-pollination techniques in the greenhouse.

### LEADERSHIP AND AWARDS

Member of the Technology Committee, Botanical Society of America.	2015–2018
Symposium Co-Organizer, Botany 2016 Conference, Savannah, Georgia, USA	2016
President, Student Chapter of the Botanical Society of America at the University of Idaho.	2012–2014
Vice President, Graduate and Professional Student Association, University of Idaho.	2013–2014
Nominated to the “Outstanding graduate student teaching award”, University of Idaho.	2012–2013
Chair, Awards Committee, Graduate and Professional Student Association, University of Idaho	2011–2013
Department’s Senator, Graduate and Professional Student Association, University of Idaho.	2010–2012

### INVITED PRESENTATIONS AND SEMINARS

“Genomics in Plant Systematics.” BioLunch Seminar Series University of Missouri – St. Louis. St. Louis, MO, USA.	April 2017
“Investigating the Accumulation of Evidence for Speciation.” St. Louis Ecology, Evolution, and Conservation Retreat (SLEEC). St. Louis, MO, USA.	September 2016
“Phylogenomic insights into the accumulation of species properties during rapid Andean radiations.” Seminar at the Department of Plant Biology, Ecology, and Evolution, Oklahoma State University Stillwater, OK, USA.	September 2016
“The evolutionary history of <i>Neobartsia</i> (Orobanchaceae)—biogeography, dispersification, genomics, and coalescence.” Plant Research and Conservation in the Andes Symposium. Botany 2016, Savannah, GA, USA.	August 2016
“Phylogenomic insights into the radiation of an Andean group of plants.” BioLunch Seminar Series University of Missouri – St. Louis. St. Louis, MO, USA.	November 2015
“Dos nuevos métodos genómicos basados en PCR de microfluidos y PCR de largo alcance y sus usos en filogenómica.” BIOS (Colombia’s Bioinformatic and Computational Biology Institute) Manizales, Colombia.	August 2015
“Incrementos en las tasas de diversificación y sus consecuencias en la biogeografía: estudios de caso en <i>Bartsia</i> (Orobanchaceae) e <i>Hypericum</i> (Hypericaceae).” II Biogeography Symposium (invited by the Bogotá Botanical Garden) at the VII Colombian Botanical Congress, Manizales, Colombia.	August 2015
“Phylogenomic insights into the radiation of an Andean group of plants.” Palouse Ecology, Evolution and Systematics. Washington State University and University of Idaho, Moscow, ID, USA.	April 2014
“A short story of <i>Bartsia</i> (Orobanchaceae): New genomic approaches.” Universidad de Los Andes, Bogotá, Colombia.	September 2013
“Phylogenetic analysis of <i>Bartsia</i> L. (Orobanchaceae)—New Genomic Tools” Universidad Mayor de San Andrés (UMSA), La Paz, Bolivia.	March 2013
“Investigating the Accumulation of Evidence for Speciation.” Institute for Bioinformatics and Evolutionary Studies (IBEST), University of Idaho, Moscow, ID, USA.	November 2012
“Páramo: A South American Alpine Ecosystem.” Global Rangeland Seminar University of Idaho, Moscow, ID, USA.	November 2011
“Using Phylogenies to Understand Biodiversity.” Student Chapter, Society of American Foresters University of Idaho, Moscow, ID, USA.	February 2011

### PRESENTATIONS AT PROFESSIONAL MEETINGS (\*PRESENTER, ^MENTORED UNDERGRADUATE STUDENT CO-AUTHOR)

Muchhala N*, Uribe-Convers S. “Genomic signature of asymmetric pollen transfer among <i>Burmeistera</i> ” XIX International Botanical Congress, Shenzhen, China.	2017
Uribe-Convers S*, Nathan Muchhala. “Phylogenomics of the Andean Plant genus <i>Burmeistera</i> (Campanulaceae).” Evolution Meeting 2017, Portland, OR, USA.	2017

- Uribe-Convers S\***, Tank DC. "The evolutionary history of *Neobartsia* (Orobanchaceae): biogeography, dispersification, genomics, and coalescence." Plant Research and Conservation in the Andes Symposium. Botany 2016, Savannah, GA, USA. 2016
- Uribe-Convers S\***, Carlsen M, Lagomarsino L, Knox E, Muchhala N. "Phylogenetic relationships of *Burmeistera* (Campanulaceae)—using high-throughput sequencing to improve resolution in a recent radiation." Botany 2016, Savannah, Georgia, USA. 2016
- Segovia C\*, **Uribe-Convers S**, Gonzalez L. "A Review of Plant Research in the Andes: 2006-2016." Botany 2016, Savannah, Georgia, USA. 2016
- Jordon-Thaden I\*, Gilman I, **Uribe-Convers S**, Chamala S, Tank D, Martine C. "Selection and validation of transcriptome-mined intronic primers for Fluidigm PCR and Illumina sequencing." Botany 2015, Edmonton, Alberta, Canada. 2015
- Uribe-Convers S\***, Tank DC. "Species-level systematics of *Bartsia* (Orobanchaceae): a multilocus approach with complete sampling and hundreds of individuals for a rapid and recent Andean radiation." Botany 2014, Boise, ID, USA. 2014
- Uribe-Convers S\***, Settles ML, Tank DC. "A targeted subgenomic approach for phylogenomics based on microfluidic PCR and high throughput sequencing." Botany 2014, Boise, ID, USA. 2014
- Jordon-Thaden I\*, **Uribe-Convers S**, Godden G, Chamala S, Tank DC, Martine CT. "A research workflow for development of single-copy nuclear loci and high throughput targeted enrichment for two or more phylogenetic studies." Botany 2014, Boise, ID, USA. 2014
- Uribe-Convers S\***, Tank DC. "Chloroplast phylogenomics in *Bartsia* (Orobanchaceae) a subgenomic approach using microfluidic PCR." Botany 2013, New Orleans, LA, USA. 2013
- Uribe-Convers S\***, Duke J<sup>^</sup>, Moore JM, Tank DC. "Got Genome: A long-PCR based method for chloroplast genome enrichment and a subgenomic approach for phylogenomics." Botany 2013, New Orleans, LA, USA. 2013
- Jacobs S\*, Kristofferson C<sup>^</sup>, **Uribe-Convers S**, Tank DC. "Evaluating the taxonomic status of two narrowly endemic Owl's Clovers (*Castilleja*: Orobanchaceae)." Botany 2013, New Orleans, LA, USA. 2013
- Uribe-Convers S\***, Duke J<sup>^</sup>, Moore JM, Tank DC. "Got Genome: A long-PCR based method for chloroplast genome enrichment and a subgenomic approach for phylogenomics." Poster at the Inland Northwest Genomics Research Symposium (NWGRS), Moscow, ID, USA. 2013
- Uribe-Convers S\***, Tank DC. "Phylogenetic analysis of the genus *Bartsia* L. (Orobanchaceae): a mostly South American genus wrapped in a European Clade." Botany 2010, Providence, RI, USA. 2010
- Tank DC\*, Duke J<sup>^</sup>, **Uribe-Convers S**. "Phylogeny and diversification of the species-rich perennial *Castilleja* (Orobanchaceae) clade: parallel radiations in western North America and montane Latin America." Botany 2010, Providence, RI, USA. 2010

## MANUSCRIPT AND PROPOSAL REVIEWS

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### Scientific Journals

- Ad hoc* Annals of Botany, American Journal of Botany, Applications in Plant Sciences, Australian Systematic Botany, Botanical Journal of the Linnean Society, Evolution, Ecology and Evolution, Genes, Genome Biology and Evolution, International Journal of Plant Sciences, Journal of Systematics and Evolution, Molecular Phylogenetics and Evolution, Molecules, New Phytologist, Phytotaxa, Plant Systematics and Evolution, Systematic Botany.
- 2013–Present Member of the Scientific Board of the Colombian Network of Evolutionary Biology (COLEVOL).
- 2012–2014 Reviewing Editor Board for Applications in Plant Sciences.

### Grant Proposal Reviews

- Ad hoc* Society of Systematic Biologists Mini-ARTS Awards, University of Idaho Student Grant Program.

## FIELDWORK EXPERIENCE

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I have conducted fieldwork in Colombia (2008, 2010, 2013), Ecuador (2010), Peru (2010, 2011), Bolivia (2013) and the USA (2010), collecting more than 800 plant specimens. I have worked in various ecosystems including the páramo, the Amazon jungle, mountainous areas, arid zones, and wetlands.

## PRESS, SCIENCE COMMUNICATION, AND OUTREACH

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- Dispersal into newly emerging environments can increase species diversification rate. 2015  
 Editor's choice for the 'Highlights Section' of the American Journal of Botany (<http://goo.gl/tFnqJR>)

- Big data: A method for obtaining large, phylogenomic data sets. 2014  
 EurekAlert! (<http://goo.gl/C4rAeh>) and in ScienceDaily (<http://goo.gl/zdFuZ4>)
- BEACON, Center for the Study of Evolution in Action, featured an entry on their blog about my work on the páramos and *Neobartsia*. Read all about it here: <http://goo.gl/K5wPgu>. 2013
- My research group and I were featured on the second episode of “Plants Are Cool, Too!” 2012  
 The episode is titled “Fossilized Forests!” and can be watched at the following link: <http://youtu.be/YfRXDbtkEi0>. Additionally, I write the Spanish subtitles for every episode in the series.

## PROFESSIONAL SOCIETIES

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American Society of Plant Taxonomists  
 Asociación Colombiana de Botánica (Botanical Society of Colombia)  
 Botanical Society of America  
 Network for Neotropical Biogeography  
 Red Colombiana de Biología Evolutiva - COLEVOL (Colombian Network of Evolutionary Biology)  
 Society for the Study of Evolution  
 Society of Systematic Biologists

## REFERENCES

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**Dr. David Tank** (former Ph.D. Advisor)  
 University of Idaho  
 Department of Biological Sciences  
 875 Perimeter MS 3051  
 Moscow, ID 83844-3051, USA  
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[dtank@uidaho.edu](mailto:dtank@uidaho.edu)  
<http://davetank.github.io/tank-lab/>

**Dr. Stephen Smith** (former Postdoctoral Advisor)  
 University of Michigan  
 Department of Ecology and Evolutionary Biology  
 2071A Kraus Natural Science Building  
 Ann Arbor, MI 48109-1048, USA  
 Tel: +1) 734 764 7923  
[eebsmith@umich.edu](mailto:eebsmith@umich.edu)  
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