

## Dr. Johanna R. Jantzen

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### CURRENT POSITION

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Oct 2020 – present      **Postdoctoral Fellow**  
Institut de Recherche en Biologie Végétale (IRBV), Université de Montréal,  
Montreal, QC, Canada  
Supervisors: Dr. Anne Bruneau and Dr. Etienne Laliberté

### EDUCATION

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2015 – 2020      **PhD Botany**  
Department of Biology, University of Florida, Gainesville, Florida, USA  
Dissertation: Evolution of Neotropical *Tibouchina* s.s. (Melastomataceae)  
Advisors: Dr. Pamela Soltis and Dr. Douglas Soltis

2013 – 2014      **MSc Biodiversity & Taxonomy of Plants**  
Royal Botanic Garden Edinburgh & University of Edinburgh, Scotland, UK  
Thesis: Phylogenetic investigation into the evolution of  
*Coelocarpum* (Verbenaceae) leading to a taxonomic  
revision  
Advisor: Dr. Alan Forrest  
Graduated with distinction

2007 – 2011      **BSc Biology**  
University of Victoria, Victoria, BC, Canada  
Graduated with distinction

### RESEARCH INTERESTS

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Plant systematics and evolution; species boundaries; origins of plant diversity and endemism; molecular systematics; biodiversity informatics; biogeography; *campos rupestres*; collections-based research; community phylogenetics

### PEER-REVIEWED PUBLICATIONS

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6. Jantzen, J.R.\*, Amarasinghe, P.\*, Folk, R.A., Reginato, M., Michelangeli, F.A., Soltis, D.E., Cellinese, N., and Soltis, P.S. 2020. A two-tier bioinformatic pipeline to develop probes for target capture of nuclear loci with applications in Melastomataceae. *Applications in Plant Sciences*. e11345.

5. **Jantzen, J.R.**, Whitten, M.W., Neubig, K.M., Majure, L.C., Soltis, D.E., and Soltis, P.S. 2019. Effects of taxon sampling and tree reconstruction methods on phylodiversity metrics. *Ecology and Evolution* 9(17): 9479-9499. DOI: <https://doi.org/10.1002/ece3.5425>.
4. Allen, G.A., McCormick, L.J., **Jantzen, J.R.**, Marr, K.L., and Brown, B.N. 2017. Distributional and morphological differences between native and introduced Common Reed (*Phragmites australis*, Poaceae) in Western Canada. *Wetlands* 110: 1-9. DOI: <https://doi.org/10.1007/s13157-017-0914-4>
3. Sutherland, B.J.G., Poley, J.D., Igboeli, O.O., **Jantzen, J.R.**, Fast, M.D., Koop, B.F., and Jones, S.R.M. 2015. Transcriptomic responses to emamectin benzoate in Pacific and Atlantic Canada salmon lice *Lepeophtheirus salmonis* with differing levels of drug resistance. *Evolutionary Applications* 8(2): 133-148. DOI: <https://doi.org/10.1111/eva.12237>
2. Rondeau, E.B., Minkley, D.R., Leong, J.S., Messmer, A.M., **Jantzen, J.R.**, Von Schalburg, K.R., Lemon, C., Bird, N.H., and Koop, B.F. 2014. The genome and linkage map of the Northern Pike (*Esox lucius*): Conserved synteny revealed between the Salmonid sister group and the Neoteleostei. *PLoS One* 9(7): e102089. DOI: <https://doi.org/10.1371/journal.pone.0102089>
1. Sutherland, B.J.G., Hanson, K.C., **Jantzen, J.R.**, Koop, B.F., and Smith, C.T. 2014. Divergent immunity and energetic programs in the gills of migratory and resident *Oncorhynchus mykiss*. *Molecular Ecology* 23(8): 1952-1964. DOI: <https://doi.org/10.1111/mec.12713>

[Google scholar](#)

\*co-first authors

## MANUSCRIPTS IN PROGRESS

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7. Freitas Oliveira, A.L., de Jesus Rocha, K.C., Rodrigues, J.L., **Jantzen, J.R.**, and Viana, P.L. *Tibouchina carajensis* (Melastomataceae), a new species endemic to the Serra dos Carajás in the Brazilian Amazon.
8. **Jantzen, J.R.**, Guimarães, P.J.F., Pederneiras, L., Freitas Oliveira, A.L., Soltis, D.E., and Soltis, P.S. Phylogenomic analysis of *Tibouchina* s.s. (Melastomataceae) highlights the evolutionary complexity of Neotropical savannas.

## FELLOWSHIPS & GRANTS

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### Grants Total: \$14,980

2019	Society of Herbarium Curators, Student Research Award (\$500)
2019	Society for the Preservation of Natural History Collections, NHCCN Travel Grant (~\$750)
2016-2019	American Society of Plant Taxonomists, Student Travel Grant (\$335)
2018	American Philosophical Society, Lewis and Clark Fund for Exploration and Field Research (\$5,000)
2018	University of Florida Biology Graduate Student Association Michael May Grant (\$300)
2017	Botanical Society of America, Graduate Student Research Award (\$500)
2017	Florida Museum of Natural History Department of Natural History Travel Award (\$1,000)
2017	International Association for Plant Taxonomy, Research Grant (\$1,000)

2017	Society for the Study of Evolution, Rosemary Grant Graduate Student Research Award (\$2,340)
2016	Society of Systematic Biologists, Graduate Student Research Award (\$1,500)
2016	American Society of Plant Taxonomists, Graduate Research Award (\$750)
2016-2019	Natural Sciences and Engineering Research Council (NSERC) of Canada Postgraduate Scholarship – Doctoral (\$63,000 over 3 years)
2015-2016/ 2019-2022	University of Florida, Graduate Student Fellowship (\$25,000/year for 4 years)

#### AWARDS, HONOURS & SCHOLARSHIPS

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2020	UF Department of Biology Graduate Student Service Award
2019	UF International Center Certificate of Excellence
2014	Top Student Award, MSc Biodiversity & Taxonomy of Plants
2013	Scotland Saltire Scholarship
2013	University of Edinburgh School of Biological Sciences Bursary Award
2010	UVic Melburn-Brenton Scholarship
2007-2010	UVic Renewable Excellence Scholarship

#### INVITED PRESENTATIONS

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**Jantzen, J.R.,** Freitas Oliveira, A.L., Guimarães, P.J.F., Soltis, D., and Soltis, P. 2020. Polyploidy complicates resolution of evolutionary relationships in *Tibouchina* s.s. (Melastomataceae). Colloquium: Exploring the utility and limits of target enrichment methods to study polyploidy and reticulate evolution. Presented at the Annual Meeting of the Botanical Society of America (virtual).

**Jantzen, J.R.,** de Souza Cortez, M.B., Nogales da Costa Vasconcelos, T., Soltis, D., and Soltis, P. 2020. Plant life in Neotropical rocky outcrops. Colloquium: Plant life in Neotropical rocky outcrops. Presented at the Annual Meeting of the Botanical Society of America (virtual).

**Jantzen, J.R.,** Freitas Oliveira, A.L., Soltis, D., and Soltis, P. 2020. Investigating geographic drivers of diversification in Neotropical *Tibouchina* s.s. (Melastomataceae). Presented at the Humboldt Symposium, UF Biodiversity Institute, University of Florida, Gainesville, FL, Feb 28, 2020.

**Jantzen, J.R.,** Freitas Oliveira, A.L., Soltis, D., and Soltis, P. 2019. Using a phylogenomic approach to resolve the systematics and taxonomy of *Tibouchina* s.s. Presented at the Universidade Federal de Uberlândia, MG, Brazil, Oct 31, 2019.

**Jantzen, J.R.,** Soltis, D., and Soltis, P. 2019. The role of xylopodia in the evolution of *Tibouchina* s.s. (Melastomataceae). Colloquium: Time to dig: the importance of underground storage organs in plant evolution. Presented at the Annual Meeting of the Botanical Society of America.

**Jantzen, J.R.,** Whitten, W.M., Neubig, K.M., Majure, L.C., Soltis, D.E., and Soltis, P.S. 2018. Alternative taxon sampling and tree reconstruction strategies can affect patterns of phylogenetic diversity: Evidence from the Ordway-Swisher Biological Station. Symposium: Collaborations in Biodiversity Research, May 7, 2018.

## CONTRIBUTED PRESENTATIONS & POSTERS

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### Oral Presentations

- Jantzen, J.R.**, Freitas Oliveira, A.L., Soltis, D., and Soltis, P. 2019. Using a phylogenomic approach to resolve the systematics and taxonomy of *Tibouchina* s.s. Presented at the Annual Meeting of the Botanical Society of America.
- Jantzen, J.R.**, Whitten, W.M., Neubig, K.M., Majure, L.C., Soltis, D.E., and Soltis, P.S. 2018. Alternative taxon sampling and tree reconstruction strategies can affect patterns of phylogenetic diversity: Evidence from a case study in Florida. Presented at the Annual Meeting of the Botanical Society of America.
- Jantzen, J.R.**, Whitten, W.M., Neubig, K.M., Majure, L.C., Soltis, D.E., and Soltis, P.S. 2017. Patterns of phylogenetic diversity based on alternative taxonomic sampling and tree reconstruction strategies: a case study from Florida. Presented at the Annual Meeting of the Botanical Society of America.
- Jantzen, J.R.**, Whitten, W.M., Neubig, K.M., Majure, L.C., Soltis, D.E., and Soltis, P.S. 2016. The effects of taxonomic and spatial scale on measures of phylogenetic diversity using a test case in Florida. Presented at the Annual Meeting of the Botanical Society of America.

### Poster Presentations

- Jantzen, J.R.**, Freitas Oliveira, A.L., Soltis, D., and Soltis, P. 2020. Biogeography of *Tibouchina* s.s.: identifying the origins of *cerrado* and *campos rupestres* plant diversity. Presented at the fourth Society of Systematic Biologists standalone meeting.
- Jantzen, J.R.**, Freitas Oliveira, A.L., Soltis, D., and Soltis, P. 2019. Biogeography of *Tibouchina* s.s.: identifying the origins of *cerrado* and *campos rupestres* plant diversity. Presented at the Annual Meeting of the Botanical Society of America.
- Amarasinghe, P., **Jantzen, J.**, Folk, R., Soltis, D., Soltis, P., Cellinese, N. 2019. Developing a new bioinformatics pipeline to capture low-copy nuclear loci for two distant clades of Melastomataceae. Presented at the Annual Meeting of the Botanical Society of America.
- Jantzen, J.**, Freitas Oliveira, A.L., Soltis, D., and Soltis, P. 2018. Niche divergence among *Tibouchina* s.s. (Melastomataceae). Presented at the Annual Meeting of the Society for the Preservation of Natural History Collections.
- Amarasinghe, P., **Jantzen, J.**, Soltis, D., Soltis, P., and Cellinese, N. 2018. Developing tools to capture loci of two distant clades of Melastomataceae. Presented at the Annual Meeting of the Botanical Society of America.

**Jantzen, J.,** Freitas Oliveira, A.L., Soltis, D., and Soltis, P. 2018. Niche divergence among *Tibouchina s.s.* (Melastomataceae). Presented at the Annual Meeting of the Botanical Society of America.

## **TEACHING EXPERIENCE AND CERTIFICATION**

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- Jan-Apr 2020 Teaching Assistant – Biology Department, University of Florida  
Course-based Undergraduate Research Experience: Plants on the Tree of Life
- 2019 Principles of Effective Instruction Certificate  
5 Modules: Aligning Assessments to Objectives, Applying Educational Theory, Effective Feedback, Flexible Assessments, Recognize and Respond to At-Risk Students
- Jan-Apr 2016 Teaching Assistant – Biology Department, University of Florida  
Integrated Principles of Biology Lab 2

## **UNDERGRADUATE MENTORING**

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- 2019 Bruna Gentiles, 2<sup>nd</sup> year, Universidade Federal de Uberlândia (Oct 2019-present)  
Chromosome counts (cytology) in *Tibouchina s.s.*
- 2019 Cecilia Novais, 2<sup>nd</sup> year, Universidade Federal de Uberlândia (Oct 2019-present)  
Chromosome counts (cytology) in *Tibouchina s.s.*
- 2019 Alina Alvarez, 2<sup>nd</sup> year, University of Florida (Apr 2019- August 2019)  
Using machine learning to understand phenology in *Tibouchina s.l.*
- 2019 Nhi Doan, 1<sup>st</sup> year, University of Florida (Apr 2019-August 2019)  
Using machine learning to understand phenology in *Tibouchina s.l.*
- 2019 Anthony Portugues, 1<sup>st</sup> year, University of Florida (Jun 2019-Dec 2019)  
Morphology of underground organs in *Tibouchina s.s.*
- 2018 Gabriel Leme, Santa Fe College (Nov 2018-Feb 2019)  
Functional traits – measuring SLA for silica dried plant tissue

## **WORKSHOPS AND COLLOQUIA ORGANIZED**

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- 2020 “Plant life in Neotropical rocky outcrops”: Colloquium at Annual Botanical Society of America conference (co-organized with M.B. de Souza Cortez)
- “Using Digitized Herbarium Data in Research: A Crash Course”: iDigBio/BiotaPhy workshop presented at Annual Botanical Society of America conferences
- 2017 + 2018 Developed and presented “Community Phylogenetics” Module  
2016 Assisted with workshop presentation and activities

## **PROFESSIONAL DEVELOPMENT EXPERIENCE**

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- 2019 Learn – Discover – Lead Seminar Series Certificate (University of Florida, Office of Human Resource Services)  
4 Modules: Project Management, Team Dynamics and Leading Teams, Effective Science Communication in the Internet Age, The Art (and Science) of Writing Effective Multiple Choice Questions

2018 “How to prepare your data for publication, and what to do with open data”  
Presented by Canadensys and iDigBio in Vancouver, Canada (Nov 7-9)

## **FIELD EXPERIENCE**

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Jan 2018 & Oct-Nov 2019 *Tibouchina* research in Brazil  
Collecting expeditions across the states of Goiás, Distrito Federal and Mato Grosso to collect specimens of *Tibouchina s.s.*, in collaboration with Ana Luiza Freitas Oliveira (UNESP Rio Claro, Rio Claro, São Paulo) and Vinicius Brito (Universidade Federal de Uberlândia, Minas Gerais)

Jan 2014 Tropical Field Botany Course in Belize  
MSc Biodiversity & Taxonomy of Plants course: collecting plants, conducting surveys and transects, and identifying tropical plants to family

Mar-May 2012 Butterfly surveys in France  
Performed capture-mark-recapture survey on *Zerynthia polyxena*, conducted transect surveys and identified butterflies of southern France

## **SERVICE & OUTREACH**

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### Academic Service

2020 Reviewer for Diversity and Distributions, Applications in Plant Sciences

### Departmental Service

2019-2020 Founding member of FLMNH Natural History Collections Club and Student Group

2019-2020 Biology Graduate Student Association: President

2019-2020 Graduate representative on Mentorship Committee

2018-2020 Established and coordinated BGSA Writing Group

2018-2020 Member of BGSA Mental Health Committee

2018-2019 Biology Graduate Student Association: Vice-President

2017-2018 Biology Graduate Student Association: Faculty Recruitment Coordinator

2016-2017 Biology Graduate Student Association: Seminar Committee Member

### Society Service

2019-2020 ASPT Collections Committee – Student Representative

2019-2020 Member of organizing committee for SSB2020

2019 Contributor to BSA Student Newsletter

### Community Outreach

2017-2019 Girls Who Code Club, Facilitator – Eastside High School, Gainesville, FL  
Instructor for local high school club which meets once a week

2018 WeDigBio volunteer – Florida Museum, Gainesville, FL  
Demonstrated and supervised public participation in Notes from Nature activity

2017, 2018 She’s a Scientist outreach event – Florida Museum, Gainesville, FL  
Event for Girl Scouts: assisted girls with plant- and evolution-based activities

## **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

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2016-present American Society of Plant Taxonomists

2016-present Botanical Society of America

2019-2020 Society for the Preservation of Natural History Collections

2017-2020 Torrey Botanical Society

2017-2020 Society of Herbarium Curators

2017-2020	International Association for Plant Taxonomy
2017-2020	Society for the Study of Evolution
2016, 2019-2020	Society of Systematic Biologists