

# Marie-Hélène Brice

Phd candidate in ecology  
Master in ecology

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## Scientific skills

Plant ecology  
Community ecology  
Landscape ecology  
Urban ecology  
Functional ecology  
Multivariate statistics  
Spatial statistics

## Technical skills

■■■■■ R  
■■■■■ Markdown  
■■■■■ HTML/CSS  
■■■■■ Inkscape  
■■■■■ ArcGIS  
■■■■■ Microsoft Office

## 🎓 Education

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- 2016– **Phd Thesis.** Université de Montréal, University of Toronto.  
*Spatio-temporal response of trees in the boreal-temperate ecotone in the face of climate change.*  
Advisors: Pierre Legendre & Marie-Josée Fortin  
Cumulative mean 4.3/4.3
- 2013–2015 **Master Thesis.** Université de Montréal, Institut de recherche en biologie végétale & Université Laval  
*Impacts de l'urbanisation sur la diversité spécifique et fonctionnelle dans les forêts riveraines.*  
Advisors: Stéphanie Pellerin & Monique Poulin  
Mention of excellence. Cumulative mean 4.3/4.3
- 2010–2013 **Honors' bachelor degree in Biology. Ecology, biodiversity & evolution.** Université de Montréal  
*Honor project: Distribution et diversité des espèces lianescentes dans les écosystèmes urbains.*  
Advisors: Stéphanie Pellerin  
Mention of excellence. Cumulative mean 4.27/4.3

## 🏆 Grants & scholarships

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- 2018 Excellence awards - Faculté des études supérieures et postdoctorales, Université de Montréal
- 2017 Excellence awards - Faculté des études supérieures et postdoctorales, Université de Montréal
- 2016 Excellence awards - Quebec Centre for Biodiversity Science (QCBS)
- 2016 Excellence awards - Faculté des études supérieures et postdoctorales, Université de Montréal
- 2015–2018 Postgraduate Scholarships for doctoral research - NSERC
- 2014–2015 Master's research scholarships - Fonds de Recherche du Québec Nature et Technologies (FRQNT)
- 2013–2014 Alexander Graham Bell Canada Graduate Scholarships for master's research - NSERC
- 2013 Dean excellence awards
- 2013 Undergraduate Student Research Awards - NSERC
- 2012 Undergraduate Student Research Awards - NSERC
- 2011 Undergraduate Student Research Awards - NSERC
- 2010 Entrance scholarship - Université de Montréal

## ★ Honors & Awards

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- 2018 Best Presentation Award - Symposium de biologie, Université de Montréal
- 2017 Governor General's Academic Medal
- 2017 Best Presentation Award - Symposium de biologie, Université de Montréal

2014	Best Presentation Award - Annual symposium of Quebec Center for Biodiversity Science (QCBS)
2013	Best Presentation Award - Symposium de biologie, Université de Montréal

## Papers published in peer-reviewed journal

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1. Delmas E., Besson M., **Brice M.**, Burkle L., Dalla Riva G., Fortin M., Gravel D., Guimarães P., Hembry D., Newman E., Olesen J., Pires M., Yeakel J., Poisot T., 2018. Analysing ecological networks of species interactions: Analyzing ecological networks. *Biological Reviews* .  
<http://doi.wiley.com/10.1111/brv.12433>
2. **Brice M.**, Pellerin S., Poulin M., 2017. Does urbanization lead to taxonomic and functional homogenization in riparian forests?. *Diversity and Distributions* **23**(7):828-840.  
<http://doi.wiley.com/10.1111/ddi.12565>
3. **Brice M.**, Pellerin S., Poulin M., 2016. Environmental filtering and spatial processes in urban riparian forests. *Journal of Vegetation Science* **27**(5):1023-1035.  
<http://doi.wiley.com/10.1111/jvs.12425>
4. **Brice M.**, Bergeron A., Pellerin S., 2014. Liana distribution in response to urbanization in temperate forests. *Écoscience* **21**(2):104-113.  
<https://www.tandfonline.com/doi/full/10.2980/21-2-3692>

## In Preparation

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1. Deschenes E., **Brice M.**, Brisson J., 2018. What factors influence tree mortality in an old growth mixed deciduous forest?. *in prep.*
2. Kirk D., **Brice M.**, Bradstreet M., 2018. Beta diversity changes in a Remnant Carolinian Forest: Evidence for Biotic Homogenization. *in prep.*
3. **Brice M.**, Cazelles K., Legendre P., Fortin M., 2018. Drivers of forest community changes in the boreal-temperate ecotone. *in prep.*

## Thesis & Reports

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1. **Brice M.**, 2018. Tendances temporelles dans les populations de Ginseng à cinq folioles (*Panax quinquefolius*) de la Montérégie. Report for Nature Action Québec.
2. **Brice M.**, 2015. Impacts de l'urbanisation sur la diversité spécifique et fonctionnelle dans les forêts riveraines. Master thesis. Université de Montréal.  
<https://papyrus.bib.umontreal.ca/xmlui/handle/1866/13639>
3. **Brice M.**, 2015. Comparaison de la biodiversité des plantes vasculaires des tourbières entre des régions laurentienne et boréale du Québec et le long d'un gradient bordure-centre. Undergraduate thesis. Université de Montréal.

## Talks & posters

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1. **Brice M.**, Legendre P., Fortin M., 2018. Dynamique de transition des communautés forestières dans l'écotone boréal-tempéré. Journée Modèle Québec - Ministère Forêts, Faune et Parcs. Québec, Qc.
2. **Brice M.**, Cazelles K., Legendre P., Fortin M., 2018. Long-term forest community changes in the boreal-temperate ecotone. ESA Annual Meeting. New-Orleans, LA.

3. **Brice M.**, Legendre P., Fortin M., 2018. Changements dans les communautés forestières du Québec méridional au cours des 4 dernières décennies. Invited speaker at Flora Quebeca Meeting. Saint-Augustin-de-Desmaures, Qc.
4. **Brice M.**, Legendre P., Fortin M., 2018. Dynamique de transition des communautés forestières dans l'écotone boréal-tempéré. Symposium du Département de sciences biologiques de l'Université de Montréal. Montréal, Qc.
5. **Brice M.**, Legendre P., Fortin M., 2017. Tendances démographiques dans la forêt tempérée nordique. Congrès international francophone en écologie végétale (ECOVEG13). Forêt Montmorency, Qc.
6. **Brice M.**, Pellerin S., Poulin M., 2016. Is urbanization driving riparian forests toward taxonomic and functional homogenization?. Annual symposium of Quebec Center for Biodiversity Science (QCBS). Montréal, Qc.
7. **Brice M.**, Pellerin S., Poulin M., 2015. Disentangling environmental filtering and spatial processes structuring plant functional communities in urban riparian forests. ESA Annual Meeting. Baltimore, MD.
8. **Brice M.**, Pellerin S., Poulin M., 2015. Impact de l'urbanisation sur la distribution de la diversité spécifique et fonctionnelle dans les forêts riveraines. Master exit seminar. Institut de Recherche en Biologie Végétale, Montréal, Qc.
9. **Brice M.**, Pellerin S., Poulin M., 2014. The role of land use, flood variability and spatial processes in structuring functional plant communities in urban riparian forests. Annual symposium of Quebec Center for Biodiversity Science (QCBS). Montréal, Qc.
10. **Brice M.**, Bergeron A., Pellerin S., 2014. Climbing towards the light: Liana distribution and diversity in urban ecosystems. Partnerships for the Living City: Promoting Urban Biodiversity - A Partnership with the Secretariat of the Convention on Biological Diversity. Montréal, Qc.
11. **Brice M.**, Bergeron A., Pellerin S., 2013. Impact de l'urbanisation sur la distribution des espèces lianescentes. Symposium du Département de sciences biologiques de l'Université de Montréal. Montréal, Qc.

## **Working experience**

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2017–	<b>R workshop coordinator</b> , Quebec Center for Biodiversity Science (QCBS) <i>Organize annual R symposium and R workshops for students from different universities in Quebec, revamping materials.</i>
2018	<b>Consultant in biostatistic and ecology</b> , Nature Action Québec <i>Analyze population trends of a rare plant (Panax quinquefolius) in Montérégie.</i>
2017–2018	<b>Research assistant in biostatistic and ecology</b> , Institut de recherche en biologie végétale <i>Perform various biodiversity analysis.</i>
2014	<b>Consultant in plant ecology</b> , Institut national de la recherche scientifique (INRS) <i>Work on plant functional groups for a study on environmental equity.</i>
2013–2014	<b>Administrative associate</b> , Société Québécoise de Phytotechnologie
2011–2013	<b>Research assistant</b> , Institut de recherche en biologie végétale <i>Lab and field work in plant ecology.</i>

## **Teaching**

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2018	<b>Advanced R course on geospatial analysis and map editing.</b> Instructor Quebec Center for Biodiversity Science (QCBS) (0.5 day)
2016–2018	<b>Forest ecology course.</b> Teaching assistant Université de Montréal (1 semester/year)

- 2015–2017 **Biostatistic 2.** Teaching assistant  
Université de Montréal (1 semester/year)
- 2015–2017 **Multivariate analysis and Advance multivariate analysis.** R workshop presenter  
Université de Montréal & Université du Québec à Montréal. Quebec Center for Biodiversity Science (QCBS) (6h/year)
- 2014 **Biostatistic 1.** Teaching assistant  
Université de Montréal (1 semester/year)
- 2013–2014 **Plant ecology course.** Teaching assistant  
Université de Montréal (1 semester/year)

## **Community involvement**

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- 2017 *Organizing committee of the Congrès international d'écologie végétale, ECOVEG13.*
- 2016–2017 *Scout leader for a group of 12-15 year-old girls.*
- 2016–2017 *Organizing committee of Symposium de biologie de l'Université de Montréal.*