

# Kevin Cazelles

**Nationality:** french

🏠 90 Queen St  
N1E 4R8 Guelph  
ON, Canada

☎ +33 6 38 45 42 79

✉ [kevin.cazelles@gmail.com](mailto:kevin.cazelles@gmail.com)

🌐 [kevcz.github.io](https://kevcz.github.io)

🌐 [insileco.github.io/](https://insileco.github.io/)

🌐 [KevCaz](#)

OrCID [0000-0001-6619-9874](#)

**French:** mother tong

**English:** fluency

**Portuguese:** fluency

**German:** beginner

**Chinese:** beginner

**Phd in theoretical ecology**  
**Agricultural Engineer**

## Scientific Programming

■■■■■ R

■■■■■ C/C++

■■■■■ Matlab/Octave

■■■■■ Python

■■■■■ Julia

■■■■■ Java

■■■■■ Sage

■■■■■ Bash

■■■■■ UNIX

## Web and Document Preparation

■■■■■ HTML/CSS

■■■■■ Javascript

■■■■■ Markdown

■■■■■ Jekyll Hugo

■■■■■ Latex

■■■■■ Inkscape

■■■■■ Microsoft Office

■■■■■ LibreOffice

## 🎓 Education

2012-2016 Phd Thesis. *Influence of biotic interactions on the geographic distribution of species.*  
*Université du Québec À Rimouski, Canada / Université de Montpellier, France (Joint PhD).*  
**Doctor of Philosophy in Ecology (grade: Excellent)**

2008-2012 Studies in Agricultural Engineering and M.Sc, Ecology and Evolution  
*AgroParisTech, Paris, France*  
**Diploma of Agronomy Engineer and Master of Science in Ecology and Evolution**

## 📈 Experience

Since June 2017 McCann Lab, University of Guelph  
Guelph ON, Canada  
*Post-doctoral fellow: theoretical investigations to build an energetic theory of island biogeography.*

Summer 2012 Laboratoire Ecologie et Evolution, Ecole Normale Supérieure  
Paris, France  
*Research Professional, working on wavelets: statistical testing, code in C and application to time series of dengue in Southern Asia.*

Early 2012 Institut des Sciences de l'Evolution, Université de Montpellier  
Paris, France  
*Four months' training period, working on species distribution model and biotic interactions.*

2011 Laboratório de Ecologia Evolutiva e Biodiversidade, Universidade Federal de Minas Gerais  
Belo Horizonte, Brazil  
*Six months' training period, working on herbaceous plant communities in Cerrado: phenology and germination.*

2009 SIMBIOS Centre, Abertay University  
Dundee, United Kingdom  
*Six months' training period, working on modelling fungal growth dynamics in a realistic soil environment.*

## Grants and awards

---

|           |  |
|-----------|--|
| 2017      | ACFAS award for the best joint PhD France-Canada (French laureate)<br>1,500\$ CA                               |
| 2016      | Grant from the FRQNT (Fonds de Recherche du Québec Nature et Technologies)<br>20,000\$ CA                      |
| 2016      | Excellence awards of the Quebec Centre for Biodiversity Science (QCBS)<br>1,500\$ CA                           |
| 2015      | Award for the second best oral presentation of the QCBS annual meeting<br>150\$ CA                             |
| 2015–2016 | Grant from the Frontenac program (mobility program for joint Phd between France and Québec)<br>6,000\$ CA/year |
| 2012–2015 | Grant from the Ministry of Higher Education and Research of France<br>24 000€/year                             |
| 2012–2015 | Grant from the FRQNT<br>4,000\$ CA/year  |

## Teaching

---

|           |  |
|-----------|--|
| 2018      | Institut de recherche en biologie végétale, Montreal (3 hours)<br><i>Use R as a geographic information system</i>  |
| 2017      | Centre de la Science de la Biodiversité du Québec (CSBQ) (3 days)<br><i>Instructor in a meta-analyses workshop.</i>  |
| 2017      | University of Sherbrooke (5 days)<br><i>Instructor in the summer school "Bayesian Statistics for Ecologists".</i>  |
| 2016      | Quebec Centre For Biodiversity Science (2 days)<br><i>Organizing a two-days event on data vizualization in biodiversity science for graduate students.</i> |
| 2014–2016 | Université du Québec à Rimouski (16h/year)<br><i>Presenter for the QCBS R workshop series.</i>   |
| 2014–2015 | Université du Québec à Rimouski (1 day/year)<br><i>Advanced R course on data visualization and graphics editing.</i>                                       |
| 2013–2015 | Université de Montpellier (64h/year)<br><i>Practical course for first year undergraduates in developmental biology.</i>                                    |
| 2014      | Universidade Federal de Minas Gerais (1 day)<br><i>Advanced R course on map editing.</i>   |

## Articles published in peer-reviewed journal

---

1. Galiana N., Lurgi M., Claramunt-López B., Fortin M., Leroux S., **Cazelles K.**, Gravel D., Montoya J., 2018. The spatial scaling of species interaction networks. *Nature Ecology & Evolution* .  
<https://doi.org/10.1038%2Fs41559-018-0517-3>
2. MacDougall A., Harvey E., McCune J., Nilsson K., Bennett J., Firn J., Bartley T., Grace J., Kelly J., Tunney T., McMeans B., Matsuzaki S., Kadoya T., Esch E., **Cazelles K.**, Lester N., McCann K., 2018. Context-dependent interactions and the regulation of species richness in freshwater fish. *Nature Communications* **9**(1).  
<https://doi.org/10.1038%2Fs41467-018-03419-1>
3. Legagneux P., Casajus N., **Cazelles K.**, Chevallier C., Chevrinais M., Guéry L., Jacquet C., Jaffré M., Naud M., Noisette F., Ropars P., Vissault S., Archambault P., Bêty J., Berteaux D., Gravel D., 2018. Our house is burning: Discrepancy in climate change vs. Biodiversity coverage in the media as compared to scientific literature. *Frontiers in Ecology and Evolution* **5**.  
<https://doi.org/10.3389%2Ffevo.2017.00175>

4. Kopelke J., Nyman T., **Cazelles K.**, Gravel D., Vissault S., Roslin T., 2017. Food-web structure of willow-galling sawflies and their natural enemies across europe. *Ecology* .  
<https://doi.org/10.1002%2Fecy.1832>
5. **Cazelles K.**, Mouquet N., Mouillot D., Gravel D., 2016. On the integration of biotic interaction and environmental constraints at the biogeographical scale. *Ecography* **39**(10):921-931.  
<http://dx.doi.org/10.1111/ecog.01714>
6. **Cazelles K.**, Araújo M., Mouquet N., Gravel D., 2015. A theory for species co-occurrence in interaction networks. *Theoretical Ecology* **9**(1):39-48.  
<https://doi.org/10.1007%2Fs12080-015-0281-9>
7. Poisot T., Cirtwill A., **Cazelles K.**, Gravel D., Fortin M., Stouffer D., 2015. The structure of probabilistic networks. *Methods Ecol Evol* :n/a-n/a.  
<http://dx.doi.org/10.1111/2041-210x.12468>
8. Stradic S., Silveira F., Buisson E., **Cazelles K.**, Carvalho V., Fernandes G., 2015. Diversity of germination strategies and seed dormancy in herbaceous species of campo rupestre grasslands. *Austral Ecology* **40**(5):537-546.  
<http://dx.doi.org/10.1111/aec.12221>
9. Cazelles B., **Cazelles K.**, 2014. Major urban centers have weak influence on the timing of dengue epidemics in southeast asia. *International Journal of Infectious Diseases* **21**:217.  
<http://dx.doi.org/10.1016/j.ijid.2014.03.873>
10. Cazelles B., **Cazelles K.**, Chavez M., 2013. Wavelet analysis in ecology and epidemiology: Impact of statistical tests. *Journal of The Royal Society Interface* **11**(91):20130585-20130585.  
<http://dx.doi.org/10.1098/rsif.2013.0585>
11. **Cazelles K.**, Otten W., Baveye P., Falconer R., 2013. Soil fungal dynamics: Parameterisation and sensitivity analysis of modelled physiological processes, soil architecture and carbon distribution. *Ecological Modelling* **248**:165-173.  
<http://dx.doi.org/10.1016/j.ecolmodel.2012.08.008>

## 🔧 In Preparation / Submitted / Accepted articles

---

1. Albouy C., Archambault P., Appeltans W., Araújo M., **Cazelles K.**, Cirtwill A., Fortin M., Leroux S., Pelissier L., Poisot T., Stouffer D., Wood S., Gravel D., 2018. The marine food web is globally connected. *submitted*.
2. **Cazelles K.**, Albouy C., Baiser B., Dalsgaard B., Farwig N., Lehmann L., Mouquet N., Pelissier L., Svenning J., Talluto M., Thuillier W., Gravel D., 2018. Do interacting species co-occur differently from not-interacting species?. *in prep*.
3. Solarik K., **Cazelles K.**, Bergeron Y., Messier C., Gravel D., 2018. Are priority effects preventing range shifts of temperate tree species into the boreal forest under rapid climate change?. *in prep*.
4. **Cazelles K.**, Gravel D., 2018. Towards a metabolic theory of island biogeography.. *in prep*.
5. Wheeler H., Berteaux D., Furgal C., **Cazelles K.**, Yoccoz N., Grénillet D., 2018. From monitoring to desired outcomes: Network analysis identifies key needs for the integration of socio-ecological outcomes in arctic wildlife monitoring. *submitted*.

## 📄 Reviewer for the following peer-reviewed journals

---

*American Naturalist, Ecography, Ecology, Ecology Letters, Global Ecology and Biogeography, Journal of Animal Ecology, Journal of Vegetation Science, Methods in Ecology and Evolution, PeerJ, Population Ecology, Proceedings of the Royal Society B, Theoretical Ecology.*

## </> Code

---

**graphicsutils** - a set of graphical functions. (R package).

🔗 <https://github.com/inSileco/graphicsutils>

**inSilecoMisc** - a set of miscellenous functions. (R package).

🔗 [inSileco/inSilecoMisc](https://github.com/inSileco/inSilecoMisc)

**citesR** - a R client for the CITES Species+ API. (R package).

🔗 [ibartomeus/citesr](https://github.com/ibartomeus/citesr)

**burningHouse** - code to reproduce the analysis by Legagneux et al. (2018) DOI: 10.3389/fevo.2017.00175. (reproducible science).

🔗 [KevCaz/burningHouse](https://github.com/KevCaz/burningHouse) Zenodo: [1134897](https://zenodo.org/record/1134897)

## 🔗 Science popularization

---

1. **Cazelles K.**, 2014. La Biodiversité en territoire isolée. *Accromath*. <http://accromath.uqam.ca/2014/02/la-biodiversite-en-territoires-isoles/>

## 📰 Media

---

- ✍ **la Presse** (2018, FR).  
<http://www.lapresse.ca/environnement/climat/201803/06/01-5156225-la-biodiversite-dans-lombre-des-changements-climatiques.php>
- ✍ **Anthropocenemagazine** (2018, ENG).  
<http://www.anthropocenemagazine.org/2018/02/biodiversity-ignored-by-press/>
- ✍ **Greenreport** (2018, IT).  
<http://www.greenreport.it/news/aree-protette-e-biodiversita/la-crisi-della-biodiversita-non-interessa-media/>
- ✍ **20 minutes** (2018, FR).  
<https://www.20minutes.fr/planete/2234443-20180308-pourquoi-parle-bien-plus-changement-climatique-erosion-biodiversite>
- 🎙 **RFI** (2018, FR).  
<http://www.rfi.fr/emission/20180218-2-chaos-climatique-financier-jouzel-larrourou>
- ✍ **le Devoir** (2018, FR).  
<http://www.ledevoir.com/socie dpkg-reconfigure locales te/education/518374/les-deux-derniers-laureats-de-l-acfas-reviennent-sur-leur-experience>