Tiphaine **Després**

POSTDOCTORAT FELLOW · FOREST ECOLOGIST SPECIALIZE IN SPATIAL ANALYSES & FOREST STRUCTURE

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Skill

R programming	**Build packages, data mining, parallelization, functions**, manage SQL database
Statistic	RandomForest, regression trees, **mixed models**, AIC, glm, lm, **multivariate analysis** (PCA, RDA, etc.), **spatial analysis** (point pattern analysis, rank envelope test), parametric tests (t test, ANOVA etc.), none parametric test (chi-square test, Wilcoxon test, etc.), survival test, ANCOVA, etc.
Landscape Modeling	LANDIS-II (modeling forest biomass, regeneration, disturbances, harvesting scenario, climatic and soil data)
GNU/Linux	Emacs (ESS, org-mode), LATEX, BibTEX, Git
GIS	ArcGIS, QGIS (handling projections, importing GPS data, creating basic maps)
Windows	Office suite, Photoshop, In Design, etc.
Personal skills	Rigour, autonomy, organization and confidence, team and autonomy working, teaching, fast and efficient decisions making, multi-task management
Languages	French (native) – English (fluent)

Education

2015 **PhD in Environmental Sciences**, University of Québec in Abitibi-Témiscamingue *Qc, Canada*

2010 **Master of Science in Ecology, Evolution and Biometry**, University of Lyon 1 *Lyon, France*

2008 **Licence (BSc) of Biology on Organisms and Populations**, University of Lyon 1 *Lyon, France*

Experience

Postdoctorat Fellow in forest spatial pattern *Nov. 2015 - PRESENT*

FACULTY OF FORESTRY AND WOOD SCIENCES - CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE *Prague, Czech Republic*

Dynamics of temperate moutain forests in central and eastern Europe (Carpathians). Focusing to link the forest spatial pattern to the disturbance history. Working in M. Svoboda team's

- Spatial analysis (point pattern using latest rank envelope test development)
- RandomForest analyses
- R programming (creating functions & packages, parallelization computing, use SQL database within R)
- Data mining

Teaching assistant *Feb. – Aug. 2014 & Jan. - Dec. 2015*

UNIVERSITY OF QUÉBEC AT MONTRÉAL *Montréal, Canada*

About 200 hrs. as a teaching assistant for undergraduate and PhD students for the courses BIA 1700 Organisms and environment (two times), BIO 6600 Fieldwork methodology in ecology (two times) – Vegetation component and ENV 9501 Environmental systems dynamic (two times)

PhD in Environmental Sciences on the natural disturbances dynamic of the Temiscamingue temperate deciduous forest *Jan. 2011 - Aug. 2015*

CENTRE FOR FOREST RESEARCH - UNIVERSITY OF QUÉBEC IN ABITIBI-TÉMISCAMINGUE *Qc, Canada*

Worked in collaboration with my supervisor H. Asselin (UQAT) and co-supervisors F. Doyon (ISFORT,/UQO) and Y. Bergeron (Industrial Research Chairs NSERC, UQAT-UQÀM)

- Reconstitution and modeling of the naturals disturbances dynamic of the sugar maple – yellow birch bioclimatic domain at stand and landscape scale
- **Dendrochronology**, statistical and **spatial** (point pattern) analysis using R software and LANDIS-II (forest landscape modeling)

Master training on the lentic aquatic ecosystem organism responses representative to a chronic exposition to percolated water of contaminated marine sediment. *Jan. 2010 - Jun. 2010*

ENTPE - ENVIRONMENTAL SCIENCE LABORATORY & CNRS UNIT 5023 *Vaux-en-Velin, France*

- Organization and monitoring of a long experimentation (3 months)
- Statistical analyses with R software – Mixed models, PCA, glm

Training on the impact of an organophosphorus pesticide on the interspecific mating of two trichogramma species, *Trichogramma semblidis* and *T. evanescens*. *Feb. 2009 - Jun. 2009*

CNRS UNIT 5558 - BIOMETRY AND EVOLUTIONARY BIOLOGY LABORATORY *Lyon, France*

- Organization and adaptation of a new protocol
- Statistical analyses with R software – Chi-square test, logrank test (Survival analysis)

Training on the phylogeography of *Eucalyptus regnans*, *E. Delegatensis* and *E. Obliqua* population's *Feb. 2008 - Aug. 2008*

FOREST AND ECOSYSTEM SCIENCE - UNIVERSITY OF MELBOURNE *Melbourne, Australia*

Worked in collaboration with G. Bossinger and P. Nevill
item Participated to a scientific project from beginning to end – Field work in difficult conditions in Australian Alps – Oral report in English
- Molecular biology – DNA extraction, PCR (use of microsatellites markers) and others lab works

Training on the roe population repartition in an Experimentation and Study Territory *Oct. 2007 - Jan. 2008*

CNRS UNIT 5558 - BIOMETRY AND EVOLUTIONARY BIOLOGY LABORATORY *Lyon, France*

- Studies of population genetics and field work (Capture – Mark – Recapture)
- Computerizing, structuring and analyses of an extensive dataset (over 30 years) with R software – linear models

Publication

Després, T., Asselin, H., Doyon, F., Drobyshev, I. & Bergeron, Y. 2016. Gap disturbance regime of old-growth temperate deciduous forests at their northern range limit. **Journal of Vegetation Science**. In press. doi:10.1111/jvs.12480

Després, T., Asselin, H., Doyon, F. & Bergeron, Y. 2014. Structural and spatial characteristics of old-growth temperate deciduous forests at their northern distribution limit. **Forest Science** 60(5): 871–880.

Nevill, P.G., **Després, T.**, Bayly, M.J., Bossinger, G. & Ades, P.K. 2014. Shared phylogeographic patterns and widespread chloroplast haplotype sharing in *Eucalyptus* species with different ecological tolerances. **Tree Genetics & Genomes** 10(4): 1079-1092.

Reference

Miroslav Svoboda   **svobodam@fld.czu.cz**, Professor, head of the department of Forest Ecology, Faculty of Forestry and Wood Sciences, Czech University of Life Sciences, Kamýcka 129, Praha 6 Suchdol 16521, Czech Republic

Hugo Asselin   **hugo.asselin@uqat.ca**, Professor, Titular of the Canadian Chair in first nation forestry. Département des sciences du développement humain et social Université du Québec en Abitibi-Témiscamingue 445, boulevard de l'Université, Rouyn-Noranda (Québec) J9X 5E4, Canada

Yves Bergeron   **yves.bergeron@uqat.ca**, Professor, Centre for Forest Research and Natural Sciences and Engineering Research Council-UQAT-UQÀM, Industrial Chair in Sustainable Forest Management. Université du Québec en Abitibi-Témiscamingue 445, boulevard de l'Université, Rouyn-Noranda (Québec) J9X 5E4, Canada.

Frédérik Doyon   **frederik.doyon@uqo.ca**, Professor, University of Quebec in Outaouais and Institute of Temperate Forest Science and Centre for Forest Research (ISFORT). Université du Québec en Outaouais, 58 Principale, Ripon, Québec, J0V 1V0, Canada.

Scholarship

2012 **Jean-Jacques Cossette scholarship**, for exceptional forestry research – from UQAT foundation *Qc, Canada*

2008 **International mobility scholarship**, for my Australian training – from University Lyon 1 *Lyon, France*

Oral Presentation

16ᵉ colloque annuel de la Chaire en Aménagement Forestier Durable *Amos, Canada*

Després T., Doyon F., Cyr D., Asselin H. & Y. Bergeron *Nov. 2014*

Peut-on aménager la forêt feuillue tempérée nordique et maintenir ses attributs de forêts anciennes ?

8ᵉ colloque annuel du CEF *Montréal, Canada*

Després T., Asselin H., Doyon F., Drobyshev I. & Y. Bergeron, *Apr. 2014*

Régime de trouées à la limite nordique de la forêt tempérée feuillue

9ᵗʰ NAFEW conference *Ind., USA*

Després T., Asselin H., Doyon F. & Y. Bergeron *Jun. 2013*

Dendroecological characterization of an old-growth temperate forest in western Quebec

7ᵉ colloque annuel du CEF *Montebello, Canada*

Després T., Asselin H., Doyon F. & Y. Bergeron *Apr. 2013*

Caractérisation de vieux peuplements du sous domaine bioclimatique de l'érablière à bouleau jaune de l'ouest