

Tiphaine Després

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

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Skills

R programming Build packages, data mining, parallelization, functions, manage SQL database

Statistical test RandomForest, 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 (model forest biomass, regeneration, disturbances, harvesting scenario, climatic and soil data)

GNU/Linux Emacs (ESS, org-mode), L^AT_EX, B_IB_TE_X, Git

GIS ArcGIS, QGIS (handling projections, importing GPS data, create 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, usable synthesis report by everyone

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

Nov. 2015 - PRESENT

FACULTY OF FORESTRY AND WOOD SCIENCES - CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Prague, Czech Republic

Dynamics of temperate mountain 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, 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-UQAM)

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

Publications

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.

References

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 Suchbátka 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-UQAM, Industrial Chair in Sustainable Forest Management. Université du Québec en Abitibi-Témiscamingue 445, boulevard de l'Université, Rouyn-Noranda (Québec) J9X 5E4, Canada.

Frédéric 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

- 16^e 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 ?
- 8^e 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
- 7^e 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