**Curriculum Vitae**

**Aurèle TOUSSAINT**

**PhD**

Date of birth: 16th of July 1988

Nationality: French

Professional address:

Institute of Ecology and Earth Sciences

Department of Botany

Lai 40

Tartu 51005

ESTONIA

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| **Current position** |

**January 2020 – Present: Research fellow**

Research done at the Institute of Ecology and Earth Sciences, Department of Botany (University of Tartu, Estonia)

**Supported by** the Estonian Research Council

*PSG-505:* *Toward an optimization of the functional diversity approaches of freshwater fish: historical patterns and impact of human activities.*

Rank: 1/42

260.500,00 EUR

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| **Professional appointments** |

**September 2017 – August 2019: MOBILITAS Pluss Post-Doctoral researcher**

Research done at the Institute of Ecology and Earth Sciences, Department of Botany (University of Tartu, Estonia)

**Supported by** the Estonian Research Council

*MOBJD-276: Macroecology of functional diversity: comparison of taxonomic groups*.

Rank: 1/106

63.300,00 EUR

**Evolved in the project:** *IUT20-29: Dark diversity: taxonomic, phylogenetic, functional and genetic levels in dynamic plant communities.*

**September 2016 – August 2017: Specialist fellow in MacroEcology**

Research done at the Institute of Ecology and Earth Sciences, Department of Botany (University of Tartu, Estonia)

**Evolved in the project:** *IUT20-29: Dark diversity: taxonomic, phylogenetic, functional and genetic levels in dynamic plant communities.*

**January 2016 – June 2016: Erasmus-Mundus mobility grant for PhD Student**

Research done at the Kyung Hee University – Dept of Biology – Seoul, Korea

**Supervisor**: Pr. Young-Seuk Park (Kyung-Hee University)

**October 2012 – June 2016: PhD Student in Fish Macro-ecology**

Research done at the Laboratory ‘Evolution & Diversité Biologique’ (University Paul Sabatier – Toulouse 3 UMR 5174)

**Topic:** Functional diversity of freshwater fish fauna at the world scale: patterns, determinants and human activities impacts

**Supervisors**: Pr. Sébastien Brosse (University Paul Sabatier) and Dr. Sébastien Villéger (University Montpellier 2)

**October 2013 – June 2015: Teaching assistant** in biostatistics at the University Paul Sabatier – Toulouse 3.

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| **Education** |

**2011-2012: Second year of Master of Science (MSc) in Biostatistics and ecological systems modelling** University Paul Sabatier-Toulouse 3, France – With second highest distinction (Rank: 5/19)

**Thesis** done at the Laboratory ‘Evolution & Diversité Biologique’ (UMR 5174) supervised by Sébastien Brosse and Sébastien Villéger.

**Topic:** Determinants of change in taxonomic dissimilarity in the freshwater fish fauna at the world scale

**2010-2011: First year of Master of Science (MSc) in Ecology** at theUniversity Paul Sabatier-Toulouse 3, France – With distinction (Rank: 43/172)

**Thesis** done at the Laboratory ‘Evolution & Diversité Biologique’ (UMR 5174) supervised by Sébastien Brosse and Simon Blanchet.

**Topic:** Revision of the taxonomy of the freshwater fish European fauna and implications for conservation and biogeography.

**2008-2010: Bachelor of Science (BSc) in Biology of Organisms** University of Lorraine, Nancy, France (Rank: 90/237)

2009, July: **Thesis** done at the ‘Département d’Ecologie, Physiologie et Ethologie’ (UMR 7178 DEPE)supervised by Pr. M. Trabalon & Dr. C. Gilbert.

**Topic:** Sexual behaviour of the rats in a choosing situation

**2006-2007: ‘PCEM1’: First Year of the medical studies** University of Lorraine in Nancy, France (Rank for the competitive examination: 888/1959)

**2006: ‘Baccalauréat’ of Sciences** (Equivalent to A-Level)

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| **Scientific communications** |

**Article in international peer-reviewed journals**

\* Co-senior authorship

8. **Toussaint A.**, Bueno G., Davison J., Moora M., Tedersoo L., Zobel M., Opik M. & Partel M. ***Journal of Vegetation Science***, in press.

7. **Toussaint A.**, Charpin N., Villéger S.\* & Brosse S.\* Worldwide freshwater fish homogenization is driven by few widespread non-native species. ***Ecology Letters*** 21(11), 1649-1659

6. Kuczynski L., Côte J., **Toussaint A.**, Brosse S., Buisson L., Grenouillet G. (2018) Spatial mismatch in morphological, ecological and phylogenetic diversity, in historical and contemporary European freshwater fish faunas. ***Ecography*** 41:1665-1674.

5. Tedersoo L., Laanisto L., Rahimlou S., **Toussaint A.**, Hallikma T., Pärtel M. (2018) Global database of plants with root‐symbiotic nitrogen fixation: Nod DB. ***Journal of Vegetation Science*** 10:560-568

4. **Toussaint A.**, Charpin N., Brosse S.\* & Villéger S.\* Global functional diversity of freshwater fish is concentrated in the Neotropics. 2016. ***Scientific Report*** 6: 22125.

3. **Toussaint A.**, Beauchard O., Oberdorff T., Brosse S. & Villeger S. Worldwide freshwater fish homogenization is driven by a few widespread non-native species. 2016. ***Biological Invasions***18: 1295–1304.

2. Allard L., **Toussaint A.**, Vigouroux R. & Brosse S. Length-weight relationship of 58 fish species in streams of French Guiana. 2015. ***Journal of Applied Ichthyology***31: 567-570.

1. **Toussaint A.**, Beauchard O., Oberdorff T., Brosse S. & Villeger S. 2014. Historical assemblage distinctiveness and the introduction of widespread non-native species explain worldwide changes in freshwater fish taxonomic dissimilarity.  ***Global Ecology and Biogeography*** 23:574–584.

**Oral presentations**

5. **Toussaint, A.**, Pärtel M. Global mismatch between the species richness of vascular plants and symbiosis fungi across biogeographic realms. ***Annual meeting for macroecology of the ecological society of Germany Austria and Switzerland, Birmendorf*** (Switzerland). 2018, April.

4. **Toussaint, A.**, Pärtel M. Global mismatch between the species richness of vascular plants and symbiosis fungi across biogeographic realms. ***60th IAVS Annual Symposium***. Palermo (Italy). 2017, June.

3. **Toussaint, A.**, Charpin, N., Brosse, S., Villéger, S. Functional diversity and vulnerability of freshwater fish at the global scale. ***7th EAFES International Congress***. Daegu (Korea). 2016, April.

2. **Toussaint, A.**, Charpin, N., Brosse, S., Villéger, S. Introductions of non-natives freshwater fish affected differently the taxonomic and functional biodiversity facets. ***9th Symposium for European freshwater sciences***. Geneva (Switzerland). 2015, July

1. **Toussaint, A.,** Beauchard, O., Oberdorff, T., Brosse, S., Villéger, S. Historical assemblage distinctiveness and the introduction of widespread non-native species explain worldwide changes in freshwater fish taxonomic dissimilarity**.** [***8th* *Symposium for European freshwater sciences***](http://www.sefs2013.de/)**.** Munster (Germany). *2013, July*

**Poster**

1. **Toussaint, A.,**Charpin, N., Brosse, S., Villéger, S. Functional diversity of the freshwater fish fauna**.**[***7th Biennal conference of the International Biogeography Society***](http://www.bayceer.uni-bayreuth.de/ibs2015/)***.***Bayreuth (Germany).  *2015, January*

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| **Teaching** |

**Teaching assistant** (2013-2015), University Paul Sabatier – Toulouse 3 – France

Ecology & Quantitative Biology (BSc degree)

Biostatistics (BSc degree)

Multivariate analyses (MSc degree)

**Teaching assistant** (2019), University of Tartu, Estonia

Data analysis in community ecology (BSc-, MSc-, PhD-students)

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| **Student supervision** |

Adrien Solacroup. **Master**. January to April 2014. *Characterization of the morphological intra specific variability on the French Guyana and European freshwater fish community.*

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| **Scientific activities** |

**Reviewer for international peer-reviewed journals**

International Journal of Biodiversity and Conservation; Biological Journal of the Linnean Society; Hydrobiologia; Ecology; Scientific Report; New Phytologist

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| **Languages** |

**French:** mother tongue

**English:** excellent command

**German:** basic communication skills

**Italian:** basic communication skills

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| **Skills** |

* Office software (*Windows/Linux/Mac*)
* Statistical analyses, function programming and high level graphics *R*
* Good knowledge in GIS (*ArcGIS*)
* Image processing
* Driving licence