

Fiche analytique – Mémoire de Master MUSE

A rendre au secrétariat lors de l'inscription à la soutenance du mémoire

* champs obligatoires

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TITRE MEMOIRE*	Evaluating Blue Intensity potential and methods for <i>Pinus cembra</i> species in the protected God da Tamangur forest (Engadine, Graubünden)			
NUMERO MEMOIRE	424			
DATE SOUTENANCE	26/01/21	Salle: Zoom		Heure: 10 :00
THEMATIQUE* (AFFILIATION)				
VOLEE MUSE*	2018 - 2021			
TITRE ACADEMIQUE* (par ex.: licencié en biologie)	Bachelor of Science in Landscape Architecture			
DIRECTION* / EVALUATION	Directeur de mémoire* Stoffel Markus	Co-directeur de mémoire* Guillet Sébastien Lopez-Saez Jérôme	Nom(s) du ou des juré(s)*	
STAGE (éventuel)	Organisme d'accueil		Maître de stage	
Projet de l'ISE (éventuel) auquel le mémoire est rattaché				
Bourse (éventuelle) reçue par l'étudiant				
COLLATION*	Nb de pages* 52	Nb de figures* 28	Nb de tableaux* 1	
TERRAIN D'ETUDE OU D'APPLICATION	God Tamangur			
MOTS-CLES* (entre 5 et 10)	<i>Pinus Cembra</i> , Tree ring width, Blue intensity, Ethanol, Acetone, Soxhlet apparatus, Flatbed scanners, Wood pictures, Swiss Alps, Climate reconstruction			
RESUME* (max 1500 car)	<p>Study and climate reconstruction by tree ring averaging and tree growth ring analysis has proved its worth over the last decades in the Alpine regions. Investigative methods such as MXD (Maximum latewood Density), BI (Blue Intensity) and CWT (Cells wood thickness) have been in full emergence since the beginning of the 21st century. However, the lack of standardised protocols has made their comparison and interpretation difficult and limits their use for climate reconstruction. The Blue Intensity is a promising method, but remains understudied on different tree species. With a long life span and a central distribution in Europe, the high altitude Swiss Stone Pine called <i>Pinus cembra</i> seems a great candidate for the past climate reconstitution of in Europe and for the northern hemisphere.</p> <p>From <i>Pinus cembra</i> in the region of God Tamangur in the Swiss Alps, we aimed to compare climatic reconstruction purposes using the age-old Tree Ring Width (TRW) and recents BI methods, with comparison of two BI investigation (chemical treatment with acetone or ethanol by Soxhlet or incubation). Moreover, we compared two image acquisition processes (flatbed scanner and camera). The hypothesis was that <i>Pinus cembra</i>, studied with new investigation tools, may represent a great potential for future accurate climate reconstitution.</p> <p>This study shows the strong positive correlations obtained between Tree Ring Width (TRW), <i>Pinus cembra</i> chronology and locale temperature variations, the importance to do a chemical treatment on wood cores before apply Blue Intensity (BI) investigations, the difference between Ethanol and</p>			

	Acetone treatment, and finally a newest method to catch picture for BI investigation with a camera.
SUMMARY* (en anglais)	
REMARQUES	

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