

Master thesis

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Mémoire de stage

présenté par
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Preface

This is the online html version of my master thesis. The pdf version is available for download with the download button on top of the windows.

Have a nice reading.

Sylvain

Résumé et Abstract

Écrire le résumé français ici...

Write the english abstract here...

Acknowledgments

I would like to thank...

Introduction

- Introduce why tropical rainforest are such a good study case
- Define biodiversity
- Define ecosystem functioning
- Define ecosystem services
- Introduce tropical silviculture
- Define selective logging
- Introduce biodiversity erosion in tropical rainforests and its impact
- Introduce Loreau partitionning
- Introduce the interest of modelling

- Introduce the idea to look at biodiversity as both a parameter and an output

Tropical rainforests have fascinated ecologists due to their outstanding diversity [Connell, 1978].

Tropical forests are primary ecosystems in terms of biodiversity and carbon storage [Lewis et al., 2004].

High biodiversity from tropical rainforests is the source of many ecosystem functions, which support ecosystem services.

Biodiversity and ecosystem functioning field is emerging [Loreau, 2000].

Selective logging is increasing in tropical forests.

Tropical logging accounts for one eighth of global timber production [Blaser et al., 2011].

Selective logging represents a major threat to biodiversity [Gibson et al., 2013].

1 Materials and methods

1.1 TROLL simulator

1.1.1 Abiotic environment

1.1.2 Photosynthesis

1.1.3 Autotrophic respiration

1.1.4 Carbon uptake

1.1.5 Tree growth

1.1.6 Seed dispersion, production and recruitment

1.1.7 Mortality

1.2 TROLL sensitivity analysis

1.2.1 Functional traits

1.2.2 Seed rain

1.3 Disturbance

1.3.1 Disturbance module

1.3.2 Design of experiment

1.3.3 Outputs analysis ?

1.3.3.1 Resistance and resilience metrics

1.3.3.2 Biodiversity partitioning

1.4 Selective logging

1.4.1 Selective logging module

1.4.1.1 Designation

1.4.1.2 Selection

1.4.1.3 Rotten trees

1.4.1.4 Felling

1.4.1.5 Tracks

1.4.1.6 Gap damages

1.4.2 Design of experiment

1.4.3 Outputs analysis ?

1.4.3.1 Resistance and resilience metrics

1.4.3.2 Biodiversity partitioning

2 Results

3 Discussion

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