

**FIRE RESILIENCE OF NATIVE TREE SPECIES  
IN MONTANE FOREST ECOSYSTEM**

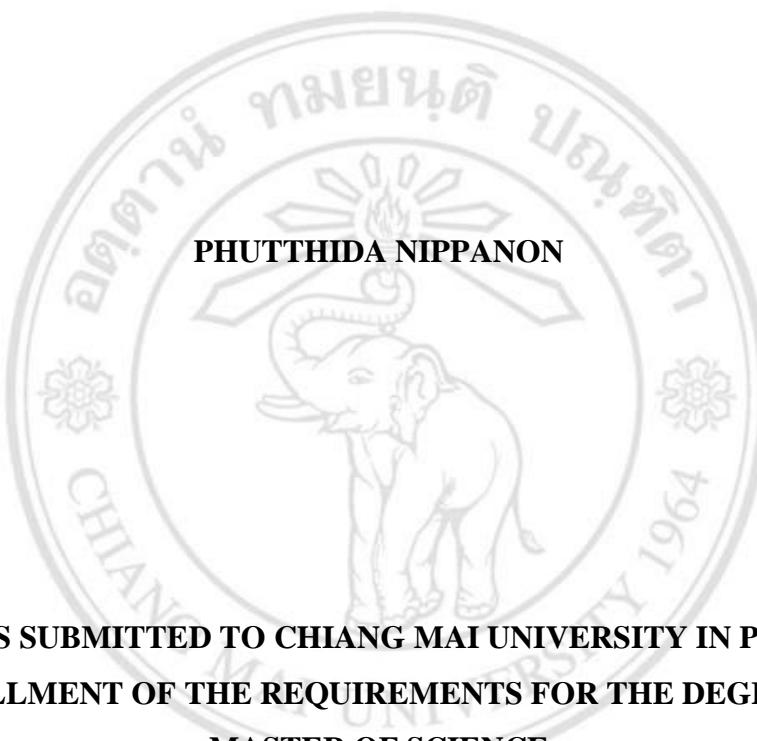
**PHUTTHIDA NIPPANON**

**MASTER OF SCIENCE  
IN ENVIRONMENTAL SCIENCE**

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่  
Copyright<sup>©</sup> by Chiang Mai University  
All rights reserved

**GRADUATE SCHOOL  
CHIANG MAI UNIVERSITY  
JANUARY 2018**

**FIRE RESILIENCE OF NTIVE TREE SPECIES  
IN MONTANE FOREST ECOSYSTEM**



**A THISIS SUBMITTED TO CHIANG MAI UNIVERSITY IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF SCIENCE**

**IN ENVIRONMENTAL SCIENCE**

â€¢  
Copyright© by Chiang Mai University  
All rights reserved

**GRADUATE SCHOOL, CHIANG MAI UNIVERSITY  
JANUARY 2018**

FIRE RESILIENCE OF NATIVE TREE SPECIES  
IN MONTANE FOREST ECOSYSTEM

PHUTTHIDA NIPPANON

THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF SCIENCE  
IN ENVIRONMENTAL SCIENCE

**Examination Committee:**

*Pimonrat Tiansawat* ..... Chairman  
(Dr. Pimonrat Tiansawat)

**Advisor:**

*Dia Panitnard Shannon* .....  
(Dr. Dia Panitnard Shannon)

*Dia Panitnard Shannon* ..... Member  
(Dr. Dia Panitnard Shannon)

*Stephen Elliot* ..... Member  
(Dr. Stephen Elliot)

*Lamthai Asanok* ..... Member  
(Assistant Professor Dr. Lamthai Asanok)

24 January 2018

Copyright © by Chiang Mai University

***To***  
***the people across time***  
***who supported and inspired***



ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่  
Copyright© by Chiang Mai University  
All rights reserved

## **Acknowledgements**

Books and nature are what I love. Also, getting a job that can create a positive impact to this world is what I expect. However, I have no idea how to get all of it. Therefore, I decided to study a Master's degree. The first reason is to search for what I really want to do, and the second reason is to travel deeply into the environmental world on academic side. And now it becomes clearer for what I really want to do and how to make a good impact to this world.

I thank FORRU-CMU for bringing me into the conservation world, lighting up my dream and being my role model. Moreover, this organization also taught me useful skills, such as adjustment to unfamiliar situations, management, problem solving, and English skills. From lack of confidence girl, I became stronger, more confident, and respected myself.

I thank Dr. Dia Panitnard Shannon for being my thesis advisor and university senior. Her office always welcomes me whenever I ran into a trouble and steered me to the right direction.

I acknowledge Dr. Pimonrat Tiansawat on helping in data analysis, data interpretation. She was the key person to help me understand that a biology paper is far easier than statistic paper. I am gratefully indebted to her for her very valuable comments on this thesis.

Thank you Aj. Steve for being my greatest role model! Your passion on tropical forest always inspires other people. If I can, I would like to be as clever, active, high inspirational and fun as you.

I thank Mr. Jatupoom Meesena and friends who involved in the validation survey for this research project. Without their passionate participation and input, the validation survey could not have been successfully conducted.

Last but not least, I would like to thank my family for their patience on waiting for my graduation, cheering me up, supporting and always standing by me in every part of my life.

Finally, I thank every lesson and experience which have influenced my growing. Master's degree might be already done, but my learning world is just starting, and I will take all of the lessons from university to create a positive impact to this world as I expected.

Phutthida Nippanon



ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

Copyright© by Chiang Mai University

All rights reserved