

**UNIVERSITI TEKNOLOGI MARA**

**EFFECTS OF ECOTOURISM  
ACTIVITIES TO TREE SPECIES  
DIVERSITY, COMPOSITION AND  
STAND STRUCTURE OF TAMAN  
NEGARA PAHANG**

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Thesis submitted in fulfillment  
of the requirements for the degree of  
**Master of Science**

**Faculty of Applied Sciences**

March 2017

## ABSTRACT

Taman Negara Pahang is blessed with diverse of tree species due to its protected status in which logging and agriculture activities are prohibited within the area. However, ecotourism activities in protected area such as hiking, trampling and camping may result in some degree of changes to natural resource conditions especially to the forest richness, diversity, stand structure, composition and environment. Therefore, a study was conducted to evaluate the effects of ecotourism activities to the stated variables in Taman Negara Pahang. A total of 40 plots measuring at  $20 \times 25$  m were established in three locations *viz.* camping areas, trekking trails and natural areas. Within each plot, all trees equal and greater than 1 cm DBH (diameter at breast height) were identified and measured, while data on light intensity and soil compaction were recorded. The analysis identified a total of 7,078 individuals belonging to 393 species and 63 families of tree. From the Analysis of Variance, there are no significant differences in the means of richness and diversity indices, stand structures and species composition among the three study sites ( $p \geq 0.05$ ). However, this study found that significant difference in the variables of forest environment ( $p < 0.05$ ) (i.e., light intensity and soil compaction). The ordination technique of Canonical Correspondence Analysis found that many tree species highly associated to light intensity and less number of tree species found when the soil become more compacted. As for the conclusion, part of ecotourism activities not affected the tree species diversity and stand structure in the study area but these activities provided significant impact to the forest environment especially to the light intensity and soil compaction and this may be influencing the pattern of tree species composition within Taman Negara Pahang. Results from this study may be useful for providing baseline information for effective planning and management of the park.

## ACKNOWLEDGEMENTS

First and foremost, Syukur Alhamdulillah, I would like to express my utmost gratitude to Allah SWT for giving me strength to complete the thesis of Master of Science. Without His blessing and permission, I would not be able to complete this work.

My very sincere gratitude to my supervisor, Professor Dr. Mohd Nazip Suratman, for his kind guidance, patience, motivation, enthusiasm and immense knowledge. One simply could not wish for a better or friendlier supervisor. Besides, my deepest appreciation to all my co-supervisors, Dr. Abd Rahman Kassim (FRIM), Dr. Mohd Salleh Daim (FSPU) and Dr. Shamsul Khamis (UPM) for their support, advice and their willingness to share their valuable knowledge in this research project. Thank you very much to my supervisor and co-supervisors for their encouragement and help that has made this work successful.

A special dedication to my beloved parents; En. Md Sabri Md Nor (abah) and (emak), my beloved grandmothers (uwan), my siblings; Mohamad Faiz, Nurfaizah and Mohamad Iqbal, with their patience to look me success to accomplish this thesis and without hesitation have given me support, tips and encouragement throughout this work. Thank you so much.

My sincere thanks also go to my work supervisors at Cawangan Pengurusan Hutan, Forest Research Institute Malaysia, Dr. Wan Mohd Shukri Wan Ahmad and Pn. Nur Hajar Zamah Shari for their understanding by giving me chance to write this thesis for a few months, patience and encouragement along the way to complete this study.

I would like to wish a very much thank you to my best friends, Muhammad Azwan Shah Iberahim and Farah Shahanim Mohamed Mohidin for their kind words, encouragement, supports and helps during writing period of this thesis.

It is my honor to acknowledge all parties that have given me their hands and contribution in the field and ideas upon completion of this research; Farika, Gufrin, Asyraf, Umairah, Tengku Zarawie, Engku Azlin, Nazlin, Nurul Ain, Kak Lili, Fahmi Mustaffa, Fahmi Saptri, and to all my field assistants during data collection. Thank you to Prof. Dr. Yap Bee Wah, a UiTM's Statistic Professor for briefly explanation and comments on statistical parts of my research study. Lots of thank to Mr. Kamaruddin Saleh, a botanist of Herbarium, Forest Research Institute Malaysia who have spent his valuable time to help me to identify tree samples in his office and at his home. I also would like to thank to all my colleagues and staffs of Cawangan Pengurusan Hutan, FRIM for their encouragement to put me in stress to ensure this thesis is accomplished.

Lastly, it is my intention to acknowledge and appreciate those who have given me support and help directly or indirectly throughout the completion of this research. To my beloved friends and classmates who are always be there and spent time to listen to my research problems, thank you so much. Thank you to En. Din and his brother who were providing me logistic during data collection in Taman Negara Pahang. Thank you to UiTM and Fundamental Research Grant Scheme (FRGS) for providing me financial support throughout the research project. Without them all, I would not have strength and courage to face the challenge throughout this research. May Allah bless all of you for your efforts and kindness. Thank you so much.

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