

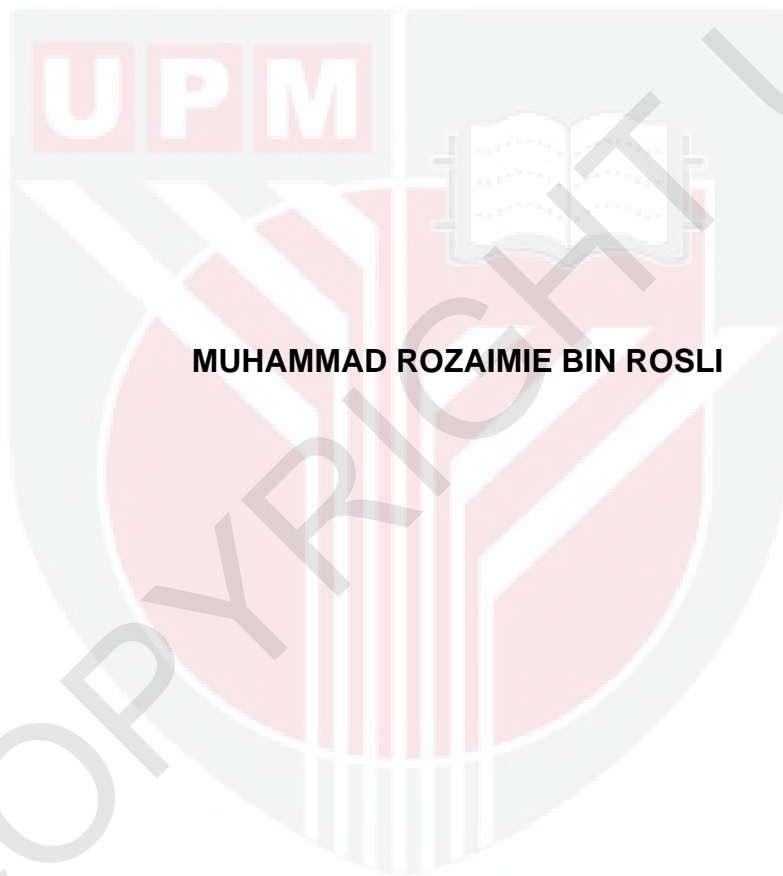


***PERCEPTIONS ON CONSERVATION MEASURES IN MOSSY FOREST AT
CAMERON HIGHLANDS***

MUHAMMAD ROZAIMIE BIN ROSLI

FH 2019 18

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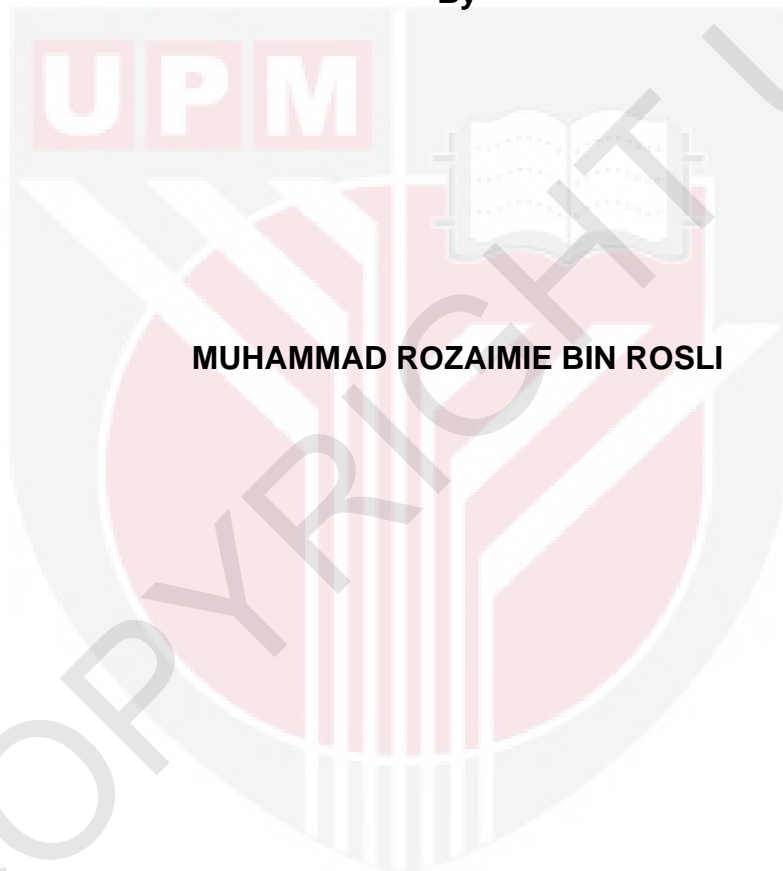
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**FACULTY OF FORESTRY
UNIVERSITI PUTRA MALAYSIA**

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**PERCEPTIONS ON CONSERVATION MEASURES IN MOSSY FOREST
AT CAMERON HIGHLANDS**

By



MUHAMMAD ROZAIMIE BIN ROSLI

A Project Report Submitted in Partial Fulfilment of the Requirements

for the Degree of Bachelor of Forestry Science in the

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2019

DEDICATION

For my beloved family,

Especially my father, Rosli bin Mustapa

Who taught me every work could be done if we keep the trying to finish it

Also, to my mother Rosnani binti Ismail who always give good advice about life.

Also my siblings; Rusyaidi, Fazana, Fatihah and Rozairie who always accompany to

Cheer my daily life

To all my friends,

Interviewer and residents who willing to cooperate to answer my questionnaire

My friends who were giving encouragements and supports

To finish the thesis

Thank you for everything

May Allah easy our life

ABSTRACT

Interest in climbing activities encourages many tourists to visit Cameron Highlands. In this area, there is a mossy forest which is very popular among climbers because of its unique and refreshing nature. This forest is covered with most moss because of the high altitude. However, the mossy forest is affected by irresponsible climbers. Hence, a perception survey is conducted to gather information on mossy forest conservation measures. This study uses Spearman's correlation analysis as a means to determine the relationship between perceptions of conservation measure for mossy forest in Cameron Highlands with particular socio-demographic of the respondents. Data were obtained using a closed questionnaire through the face-to-face interview. The questions asked includes the respondents' perceptions on issues of waste disposal, behaviour such as trampling and touching the moss, and conservation measures in mossy forest. There were 119 respondents involved in this study, and the study found that gender, age, and education levels were related to the perceptions about mossy forest conservation measures. The approach in determining the perception on conservation measure of mossy forest in Cameron highlands can assist in providing additional information and guidance for decision-making processes related to conservation of the mossy forest in Cameron Highlands.

ABSTRAK

Minat terhadap aktiviti mendaki mendorong ramai pelancong dari dalam negara dan luar negara datang ke Cameron Highlands. Di sini terdapat hutan lumut yang mana amat digemari oleh pendaki-pendaki kerana suasa yang unik dan sejuk. Hutan lumut ini diliputi lumut kerana berada di kawasan yang tinggi. Walau bagaimanapun, keadaan ini menyebabkan kehidupan dan habitat di hutan lumut ini terjejas kesan daripada segelintir pendaki yang tidak bertanggungjawab. Oleh itu kajian persepsi dijalankan untuk mendapatkan maklumat mengenai langkah pemuliharaan hutan lumut di Cameron Highlands. Kajian ini menggunakan analisis korelasi Spearman sebagai kaedah untuk menentukan hubungan antara persepsi terhadap langkah pemuliharaan hutan lumut di Cameron Highlands dengan sosio-demografi tertentu. Data diperolehi menggunakan soal selidik tertutup melalui temuduga. Antara soalan yang ditanya kepada responden mengenai isu pembuangan sampah, memijak dan menyentuh lumut serta langkah pemuliharaan di hutan lumut. Terdapat 119 responden yang terlibat dalam kajian ini dan semua merupakan responden yang berada di Cameron Highlands. Kajian ini mendapati bahawa faktor jantina, umur, dan tahap pendidikan mempunyai hubungan terhadap persepsi mengenai langkah pemuliharaan hutan lumut. Pendekatan dalam menentukan persepsi mengenai langkah pemuliharaan hutan lumut di Cameron Highlands dapat membantu dalam memberikan maklumat tambahan dan panduan untuk proses membuat keputusan yang berkaitan dengan isu yang berlaku di hutan lumut di Cameron Highlands.

APPROVAL SHEETS

I certify that this research project report entitled “Perceptions on Conservation Measures in Mossy Forest at Cameron Highlands” by Muhammad Rozaimie bin Rosli has been examined and approved as partial fulfilment of the requirements for the Degree of Bachelor of Forestry Science in the Faculty of Forestry, Universiti Putra Malaysia.

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Date:

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CHAPTER 1

INTRODUCTION

1.1 Mossy forest in Cameron Highlands

In Malaysia, mossy forest occupied the area of ridge and valleys in the range of 1800 above. It is continuously covered by mist and lower clouds with temperatures between 10 to 18 degrees Celsius. This creates an ideal condition for moss, ferns, lichen and orchids. The elevation of the mossy forest is variable because it is affected by the surrounding topography and climate pattern.

Mossy Forest of Cameron Highlands is located at the ridge of the 2032 meter-high Mount Brinchang, the highest mountain in Cameron Highlands. This forest also called with others name depending on its location. For example, in Mexico, it is called the Cloud Forest, while in California they call it Elfin Forest, and most country will call their high attitude forest as Upper Montane Forest.

These forests display similar characteristics and have vegetation that can only be found in a place with continuously cool, windy, wet, and misty environment. This environment creates an ideal surrounding for moss, ferns, lichen and orchids. It also a place for a varied set of montane creatures such as insects, snakes, frogs, birds and mammals.

This mossy forest under the management of *Jabatan Perhutanan Negeri Pahang* and which is more specifically to *Pejabat Hutan Daerah Cameron Highlands*. A permit is required if the visitor wishes to enter the mossy forest because the mossy forest is a category as a permanent forest reserve. They used this permit to monitor the visitor that is coming to the mossy forest to prevent excessive visitor because it will cause a negative impact to the mossy forest.

1.2 Why mossy forest is essential?

Many places in Cameron Highland attract tourists. Mossy forest is one of them, especially Mossy forest for the nature lovers. The tourists are willing to spend their money visiting this area; hence their visit will increase the economy of the country.

Mossy forest is the habitat of flora and fauna, especially for the diversity of flora and fauna which cannot be found in other forest types. On the trail of mossy forest, there are exotic floras including the pitcher plant, orchids, primitive ferns, spices and medicinal plants. Mossy forest is also a shelter for a wide variety of animals, birds, reptiles and insects.

Other interests found in moss forest are forests that serve as a water reservoir and prevent soil erosion. It is active water flow controllers because of the forest functions like a large span that absorbs water in the forest during

the rainy season and flows it slowly into the streams. Mossy forest is located on the mountain where the highest mountain in the Cameron Highland. This mountain is ranked the 15th highest in Malaysia. Besides. This mountain is in the Titiwangsa ranges where it is a landmark for significant rivers in the peninsula of Malaysia. The highest peak in this range is Mount Korbu (2,183 m), and it is the highest peak of the Titiwangsa Range.

One of the essential forest roles is supplying gas oxygen to the atmosphere and required by humans and animals. It balances gas content in the air through the process of transpiration. Water from the soil through the plants will be absorbed into the air, and the water on the leaf surface will also evaporate into the air. This adds to the humidity of the air.

1.3 Problem Statement

The intense development in Cameron Highland has sacrificed the surrounding nature. Without proper planning, it will become a significant environmental problem. For the mossy forest, there are some issues arise, including overcrowding from uncontrollable visitor numbers and the negative behaviour of visitors, causing environmental degradation such as litter pollution, trampling on moss and unnecessarily touching the vegetation surrounding the trails (Fernando,2016).

Due to this concern, the *Pejabat Hutan Daerah* Cameron Highlands have taken measures such as limiting the number of visitors to the mossy forest.

They also close mossy forest from visitors especially during the rainy season, part of it is due to the risk on visitors' safety and also to give time for the mossy forest to rehabilitate naturally without any human disturbance.

Based on these issues, three main environmental problems exist in mossy forest of Cameron Highlands, including (i) litter pollution: it refers to litter thrown by visitors along and around the trails in mossy forest, (ii) visitors are touching vegetation unnecessarily, causing damage to the physical structure and reduce aesthetic value of the vegetation in mossy forest, and (iii) visitors stepping outside the track provided and trampling on moss, crushing growing tips, give adverse effects on soil conditions and create extended bare ground, which at the end will make it difficult to walk on. These are the environmental problems that are the root of the destruction of the mossy forest.

1.4 Objectives of the study

The objectives of this study were to examine the perceptions on the conservation of mossy forest through the examination of (i) littering pollution, (ii) stepping outside the track provided and trampling on moss, and (iii) touching vegetation unnecessarily in the mossy forest.

This study is vital in providing information from the perspective of visitors of the mossy forest at Cameron Highlands because there are only a few mossy

forests in Malaysia. This type of forest is minimal; hence a greater effort is needed to protect its sustainability. Apart from that, the mossy forest at Cameron Highland has a variety of flora and fauna that cannot be found on the lower elevation, and become the main attraction for the tourism industry. Therefore, by protecting the mossy forest, it indirectly protects the sustainability of nature-based tourism activity in Cameron Highland.



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