

**THE EFFECT OF RECREATIONAL TRAIL ON THE
DISTRIBUTION OF SELECTED HERBACEOUS
PLANTS AND SOIL COMPACTION IN
TAMBUNAN RAFFLESIA CENTER,
TAMBUNAN, SABAH.**



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ABSTRAK

THE EFFECT OF RECREATIONAL TRAIL ON THE DISTRIBUTION OF SELECTED HERBACEOUS PLANTS AND SOIL COMPACTION IN TAMBUNAN RAFFLESIA CENTER, TAMBUNAN, SABAH.

Hutan Simpat Rafflesia Tambunan mempunyai satu kemudahan pelancongan am yang dikenali sebagai Pusat Rafflesia Tambunan. Objektif kajian ini adalah untuk menentu serta menilai mampatan Tanah, komposisi tumbuhan herba sepanjang rintis rekreasi dalam hutan tanah tinggi. Kaedah yang digunakan dalam kajian adalah a) kaedah penentuan *soil bulk density*, dan b) kaedah *point frequency*. Hasil kajian ini telah mendapati rintis rekreasi memberi kesan negatif ke atas ekosistem hutan tanah tinggi, walau bagaimanapun ia hanya sehingga 25 cm dari pusat rintis. Dalam kajian ini, mampatan tanah sepanjang rintis adalah 0.55 gcm^{-3} dan menurun kepada 0.32 gcm^{-3} di luar rintis. Kajian ini juga menunjuk kesan negatif rintis ke atas *Pothos* sp. dan *Anadendrum* sp. Di luar rintis rekreasi, kesan negatif ini adalah tidak begitu ketara. Di samping itu, kajian ini menunjukkan bahawa *Pothos* sp. kerap ditemui di sepanjang rintis dan merupakan tumbuhan herba yang dominan berbanding dengan *Anadendrum* sp. Kesan rekreasi rintis ke atas aroid adalah tidak ketara. Dari kajian ini, aktiviti pelancongan sepanjang rintis rekreasi menghasilkan kesan negatif ke atas hutan tanah tinggi kerana ia meningkatkan mampatan Tanah serta mengubah taburan tumbuhan-tumbuhan herba yang tertentu. Ciri-ciri semulajadi seperti kecuraman rintis serta keadaan lopak akan meningkatkan lagi kesan negatif rintis rekreasi ke atas ekosistem hutan tanah tinggi. Untuk ini, mempelbagaikan tarikan pelancongan di TRC merupakan satu cara mitigasi terhadap isu ini.

ABSTRACT

THE EFFECT OF RECREATIONAL TRAIL ON THE DISTRIBUTION OF SELECTED HERBACEOUS PLANTS AND SOIL COMPACTION IN TAMBUNAN RAFFLESIA CENTER, TAMBUNAN, SABAH.

Tambunan Rafflesia Forest Reserve has a facility known as Tambunan Rafflesia center which caters for mass tourism. The objective of this research is to determine effect of recreational trail by looking at soil compaction and distribution of selected herbaceous plants along a recreational trail in lower montane forest. The methods used in this research are a) soil bulk density study, and b) point frequency method. The findings of this research confirm that recreational trail has a negative impact on the lower montane forest ecosystem, but only up to about 25 cm from trail center. From this research the soil bulk density along recreational trail is 0.55 gcm^{-3} and reduces to about 0.32 gcm^{-3} off the trail. This research also shows that there is a negative impact on Pothos sp. and Anadendrum sp.. due to the recreational trail. Off the recreational trail, the impact on the aroid is not noticeable. Furthermore, this research shows that Pothos sp. is frequently found along the recreational trail and is more dominant than Anadendrum sp.. From this research, tourism activity along recreational trail has a negative impact on highland forest as it increases the soil compaction and changes the distribution of certain herbaceous plants. The natural features such as the trail steepness and waterlogged condition enhance recreational trail impact onto the forest ecosystem. As such, diversification of TRC's tourists' attractions is a possible mitigation towards this issue.