

Suphannika Kosol 2014: Hiking Activity and Some Bio-physical Impacts in Khao Sok National Park. Master of Science (Parks, Recreation, and Tourism), Major Field: Parks, Recreation, and Tourism, Department of Conservation. Thesis Advisor: Assistant Professor Noppawan Tanakanjana Phongkhieo, Ph.D. 116 pages.

The objectives of this research were to study on characteristics of hikers and pattern of hiking activity in Khao Sok National Park, to conduct an inventory on some bio-physical impacts from hiking activity along the trail. Questionnaire was used to collect data from 390 hikers. The rapid assessment and transect methods were used in an inventory on some bio-physical characteristics and current condition of the hiking trail. Ving Hin Waterfall-Bang Hua Rad-Wang Yaw trail was used as a study site. The researcher used systematic sampling in collecting bio-physical recreation impact data and used descriptive statistics, t-test and F-test to analyze the data.

The study found that the majority of hikers were foreigners. Most foreign hikers came from Europe while Thai hikers were local people. Most hikers engaged in viewing scenery activity. The average number of recreation activities participated by park visitors was 5 activities. Their most important desired recreation experience was to be closed to nature. Results from the inventory on some bio-physical characteristics and current condition of the hiking trail found tree root exposure was the most appeared impact along the trail. Soil erosion and gully were more severe in the rainy season than in the dry season. There was no difference in number of social trail, tree damage and broken tree branch between the two seasons. The overall level of impacts along the trail was low to moderate. In comparison of impacts on the middle of trail, edge of trail and natural area, the significantly differences were found in tree root exposure ( $F=10.864$ ;  $p=0.000$ ), number of seedling ( $t=6.819$ ;  $p=0.000$ ), number of sapling ( $t=7.929$ ;  $p=0.000$ ), soil bulk density ( $t=4.276$ ;  $p=0.008$ ) and soil infiltration rate ( $t=5.294$ ;  $p=0.003$ ). The percentage of ground cover and quantity of exposed tree root were also significantly differences between rainy and dry seasons ( $t=4.123$ ;  $p=0.000$  and  $t=3.483$ ;  $p=0.001$ ).

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Thesis Advisor's signature