

Sivaros Charoenruen 2012: Some Bio-physical Recreation Impacts and Limit of Acceptable Change: A Case Study of Kaeng Krachan 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. 111 pages.

The objectives of this research were to analyze recreation impacts, perception of visitors on recreation impacts and limit of acceptable change of some bio-physical recreation impacts in Kaeng Krachan National Park. Data on bio-physical recreation impacts were collected from 9 indicators including 1) soil erosion 2) root exposure 3) vegetation cover 4) tree damage 5) broken tree branch 6) trash 7) social trail 8) turbidity and 9) suspended solid at Bann Krang Camp, Panoenthung and Pala-U waterfall in dry and rainy seasons. Questionnaires were used to collect data on recreation impact perception from 417 visitors. The survey data were analyzed by descriptive statistics, t-test and Analysis of Variance.

The study found that vegetation cover and root exposure in dry evergreen forest were significantly different between middle of trail, edge of trail and natural area ($F = 47.293$; $P\text{-value} = .000$ and $F = 8.700$; $P\text{-value} = .000$). Vegetation cover and root exposure in hill evergreen forest were significantly different between middle of trail, edge of trail and natural area ($F = 16.310$; $P\text{-value} = .000$ and $F = 3.153$; $P\text{-value} = .048$). Vegetation cover on nature trail in dry evergreen forest and hill evergreen forest, Vegetation cover on campsite, turbidity and suspended solid were significantly different between dry and rainy seasons ($t = -3.235$; $P\text{-value} = .001$, $t = -3.336$; $P\text{-value} = .000$, $t = -4.343$; $P\text{-value} = .000$, $t = 5.752$; $P\text{-value} = .005$ and $t = 10.435$; $P\text{-value} = .000$, respectively). Visitors perceived that recreation impacts level was moderate. The study results found that all 9 impact indicators were in limit of acceptable change.

Student's signature

Thesis Advisor's signature