

Title : Effects of Tourism Activities towards Marine Species Richness

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ABSTRACT

Tourism is considered as one of the most important factors in economic growth. However, they can cause significant impacts towards marine species richness through an increase in pollution, habitat degradation and ecosystem disruption. This study dives into the effects of tourism related activities towards marine species richness in four National Marine Parks in Thailand. Where data will be collected from Hat Noppharat Thara Mu Ko Phi-Phi (10 Dives) , Mu Ko Similan (7 Dives), Mu Ko Lanta (3 Dives) and Mu Ko Samet National Park (1 Dive) over an eight year time period. Species identification will be done using a morphological matching method in addition, species similarities will also be conducted using an index called the Jaccard Index. The results of the study shows a decline in species richness in areas where tourism levels are high such as in Krabi and Phanga. As well as an increase in species richness in areas such as Hat Noppharat Thara Mu Ko Phi-Phi where there are low tourism numbers, this can easily be seen during the global pandemic (Covid-19) where the marine species in the area were able to recover over time. By using a scatter graph, we can show the R-squared value for the Log-normalized

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tourism numbers against the species richness with results from Hat Noppharat Thara Mu Ko Phi-Phi sitting at an R-squared value of 0.7662 and 0.5311 for Mu Ko Similan. With these results we can assess the effects of tourism activities towards marine species richness in our selected areas to set a baseline marine species report for future conservation efforts and to state the importance of implementing new sustainable tourism efforts to mitigate the effects of tourism activities.

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