**Thesis title** A Study on The Distribution and Physical Environments of Salt Licks in Huai Kha Khang Wildlife Sanctuary, Uthai Thani Province

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## Abstract

This study aims to acquire information on characteristics of salt licks in Huai Kha Khang Wildlife Sanctuary, Uthaithani Province, in terms of sites, number, distribution pattern and other associated physical environments. This basic knowledge is necessary to make-sound decision in habitat management.

Salt licks along every order of streams in four sub-watersheds within the sanctuary were randomly sampled. Correlation analysis was applied to determine statistical relationship between salt licks and

other physical factors of streams, topography, soils, forest types and wildlife.

The results show that salt licks form cluster distribution pattern and are situated in flat (0-8% slope) to slightly steep(<8-30% slope) with the altitude of 200-600 m. Most salt licks are located in the channel wall. Watersheds with low drainage density contain more salt licks than those with high drainage density. Salt licks are found more in straight streams than those with point basses or dimond islands. More salt licks are in the ephemeral streams than the permanent ones, and irregular menders are found to contain the largest number of salt licks.

Salt licks distribute mostly in mixed deciduous forest and dry evergreen forest and less in dry dipterocarp forest. Ten species of wild animals used these salt licks. Only tiger is carnivore while the rest are herbivores.

The correlation analysis indicated that

A. At 95 % of significance level, slope was related with stream type (correlation coefficient=41 %) but not related with stream order, shape of stream bed, pH, soil texture and volumes of salt licks.

B. At 95 % of significance level stream type was related with soil type, soil texture, and order of streams (correlation coefficients=51 %, 27 % and, 65 %, respectively)

To commpare salt lick forming characteristics and distribution patterns, more studies should be conducted in the areas with different geological structures. The studies which can be applied to locating man-made saltlicks with high quality are recommended. The results from

such studies are useful to any development project likely to harm prolific wildlife and forest lands.