

## A Preliminary Study on Soil Property in Ranong Mangrove Forest Ecosystem, Thailand

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### ABSTRACT

The Characteristic of soil property in the forms of color, texture and pH were studied along line transects for both perpendicular to and parallel with the channel in Ranong mangrove forest ecosystem. The analysis was carried out using actual field interpretation for color and texture of soils, while the low-cost electrochemical approach was employed to determine pH values. We revealed that soils inside the mangrove forest mostly were dark brown and black associated with clay and silt in texture particularly in Ngaw and Rachakrud. Moreover, the soil color in Bangben and Banghin were yellow and red this mainly due to the presence of iron oxides. Mangroves soils nearby beach and channel were brown and bright color then indicated good drainage and aeration. Soils Textures in Talaynog and Hadsaykaow were mixed with sand texture due to the affected of tsunami in 2004. The pH values were ranged from 5.84-7.64. The soil property is one of abiotic factor affecting mangrove reforestation and habitat restoration initiative. Thus, results that gained from this study could be used as baseline information for the aforementioned project.

**Key words:** mangrove forest, soil property, environmental factor, Ranong, Thailand

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