

SOIL CHARACTERISTICS IN SOME AREAS WHERE THE INVASIVE ALIEN PLANT SPECIES GREW AT BA NA - NUI CHUA NATURE RESERVE IN DA NANG CITY

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Summary

In this study, some basic soil characteristics as physical and chemical properties which are suffering impacts by invasive alien species at Ba Na – Nui Chua nature reserve was investigated. The results showed that the soil in the study site was very acidic with pH_{KCl} 3.84 – 4.52; the solid density of soil was relatively high and varied in the range 2.31 – 2.62 g/cm^3 ; soil texture classified from sandy loam to medium clay, cation exchange capacity CEC and Ca^{2+} , Mg^{2+} content were very low; the organic matter content ranged from medium to relatively high (2.28 – 3.41%), total nitrogen content was very poor (0.047 – 0.065%), available nitrogen content achieved rich level (15.53 – 31.26 mg/100 g), total phosphorous content varied from poor to medium level, but its available content was very poor (1.07 – 2.07 mg/100 g), total potassium content was at poor level (0.048 – 0.109%) and its available content varied from very poor to poor (3.08 – 5.62 mg/100 g). Although the soil in the studied area is poorly nutritious and has some limitations, on which the invasive alien species have still grown, developed and well adapted with high coverage. This contributes to warn of the widespread risk of invasive alien plant species in different soil nutrient conditions at the studied area. They can compete with indigenous plant species and threaten their habitat.

Keywords: *Ba Na – Nui Chua nature reserve, invasive alien plant species, soil properties, special-use forest.*