New Algorithm for Seagrass Biomass Estimation

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ABSTRACT

The seagrass biomass study in tropical region is rarely found which make it difficult to refer the previous and existing research. Besides, the seagrass biomass map by field survey is expensive and time consuming. Remote sensing technique was used to estimate seagrass biomass over large areas to avoid costly and time consuming. However, the existing studies were based on purely empirical based model where the in-situ measurements by quadrat were applied. In this paper, we introduced a new approach for seagrass biomass estimation using information of percentage coverage, dry weight, wet weight and cubical model. The cubical model is important in order to measure the density of the seagrass using the current height of the seagrass species exist. In this study, we demonstrate two distinct species which are *Enhalus Acoroides* and *Halophila Ovalis*. The preliminary result shows that the correlation is good between the ground and satellite image. This algorithm is sensitive for detrimental changes, thereby offers indicator for changes in marine ecology.

Keywords: Seagrass, biomass, remote sensing