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CARBON STORAGE IN SEAGRASS MEADOW OF TELUK BAKAU - BINTAN ISLAND

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ABSTRACT

Seagrass is a plant capable of living underwater and has the ability to store carbon through photosynthesis. This research aim to study the carbon stocks stored in the seagrass biomass in Teluk Bakau Village, Bintan Island. This research was conducted at two stations including Pulau Beralas Pasir and Teluk Bakau Village Beach. The analysis of carbon content was carried out on the biomass of the three dominant seagrass species found in the Teluk Bakau Village, namely *Cymodocea rotundata*, *Enhalus acoroides* and *Thalassia hemprichii*. The results show that the carbon stocks on seagrass has correlation with seagrass biomass. *Enhalus acoroides* have the highest carbon content compared to the other two seagrass species. In general, the seagrass located in Teluk Bakau Village Beach has higher biomass than the seagrass located in Pulau Berasas Pasir, as a result it has high carbon content. This is expected to occur considering that the area of Teluk Bakau Village Beach is close to the mainland, where the high nutrient input support for the growth of seagrass biomass. [This work is supported by research grant from DDRG-LIPI, Contract No: B-1201/IPK.02/KS/III/2018 and No: 238/KS.00.00/2018 to Prof. Dr. Indra Jaya/FPIK-IPB].

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