

Received:March,23.2009 Accepted:December,24.2009

Abstract

Previous observation revealed that dugong (*Dugong dugon*) often feeds at intertidal flats near Talibong Island where the seagrass beds are completely exposed in the air during low tide. We aimed to determine the reason why the intertidal seagrass beds are more important for dugong than other subtidal beds. In dry season, we collected seagrasses at intertidal feeding ground and other subtidal site and compared the biomass (dry wt), species composition and grazing efficiency of seagrass between two feeding grounds. We also compared the nutrients contents between the seagrasses at each seagrass bed in dry season. There were no significant differences of all comparisons between intertidal and subtidal seagrass beds in dry season. At the same time, Dugong's feeding sounds were recorded at the intertidal and subtidal bed. There was a significant bias in the distribution of average feeding sounds per 30 minutes at every 50 cm depths. According to the distribution, dugongs seemed to prefer to feed in the specific tide level zone. This study suggests that the tide level at feeding affected the feeding ground utilization by dugongs.