Manoch Wongsuryrat 2011: Productivity and Nutrition of Seagrass as Influenced on the Survival of Dugongs (*Dugong dugon*) around Koh Talibong Habitat in Trang Province. Doctor of Philosophy (Environmental Science), Major Field: Environmental Science, College of Environment.
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The limited supplies of food for the dugongs around Koh Talibong is caused by 3 problems and 4 activities and 15 indicators which result in limited and poor quality of food supplies. Particularly the acitivities around the gully that used as the dugong's food supplied. This is the reason why the dugongs population cannot rely solely on the food availability around Koh Talibong and why the largest population of dugong on the Andaman seas has to migrate or face risk of extinction.

The study of dugongs lifestyle by using paramotor to conduct aerial survey of dugongs sighted 14 dugongs in 3 areas and found 8 species of sea grass namely *Halophila ovalis, Halodule pinifolia*, *Halodule uninervis*, *Cymodocea serrulata*, *Cymodocea rotundata*, *Syringodium isoetifolium*, *Thalassia hemprichii*, *Enhalus acoroides*. The survey found 2 piles of fecal measured 6.70 and 3.50 centimeters in length and 2.2 centimeters and 1.8 centimeters in diameter respectively. Total wet weight of both piles was 27.7 grams. From the 100 x 100 meter experimental plots, 25 traces of dugongs were found. It can be concluded that dugongs like *Halophila ovalis* seagrass variety. The average mark was 0.19 meters(ranges were 0.15-0.25 meter). The average length of the mark was 4.47 meters (2.32-6.15 meters in range). The grazing range was 0.87 square meters/trace/dugong. To measure seagrass abundance, altogether 20 plots of 0.25 squaremeters in size were set up during the 2 seasons. Average wet weight of seagrass collected was 99.94 ± 33.54 grams (ranging from 23.9-158.53); the average number of seagrass leaves was 1,797 ± 915 leaves.(ranging from 551-3,354), number of leaves per unit wet weight was 17.98 ± 7.57 leave per grams (ranging from 5.83-36.16). From the analysis of the protein content in *Halophila ovalis* seagrass within the area of 0.25 squaremeters in the 20 experiment plots, the average was 6.57 ± 0.35 (ranging from 1.3-11.0)From these findings, it can be concluded that a seagrass bed of 496.8 rai can provide food to support between 85-424 dugongs. Larger seagrass beds that are 993.50 rai, 1490.30 rai, 1987 and 2483.8 rai can sustain population sizes between 71-353 dugongs, 61-303 dugongs and 53-265 dugongs respectively. Thus increasing seagrass productivity parallel to measures to regulate fishing and improve the quality of the water of the Trang river by providing education and awareness creation will constitute measures that ensure sustainable food supplies for the dugongs in this ecosystem.

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