

## **Abstract**

We examined relationship between vocal behavior of dugongs (*Dugong dugon*) and (1) time of day and (2) tide around Talibong Island, using passive acoustical observation. Also, we compared the results of several data and investigate whether the same behavior can be observed over different time of year. We used underwater sound data recorded in February and March 2004, November 2006 and January 2008 off southeast of Talibong Island and analyzed the number of calls detected in unit time in relation to time and tide. We also compared the result of the analysis among three months and investigated whether there was any difference. In terms of the effects of time, more calls were detected in nighttime than in daytime ( $p < 0.05$ ). In terms of the effects of tide, there were significant correlation between maximum tidal range and many calls were detected when tidal range was narrow. Our findings suggest that vocalization pattern of the dugongs is influenced by such external factors as time and tidal range.