

Acoustical analyses on the calls of dugongs in Thailand

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Dugong, *Dugong dugon*, has become highly endangered species in the world. It is said that the death of dugongs is mainly due to an incidental catch by fishnets. A breakthrough to avoid the incidental catch, by-catch, is in urgent need. In this study, we described the technique to detect the direction of vocalizing dugong and the acoustical characteristics of dugong calls. This study can lead to a new observation method of wild animals. A number of dugong calls were recorded around Libong Island, Trang, Thailand, using two sets of dual channel stereo hydrophones on two research vessels. The center frequency of dugong calls ranged from 3-8 kHz, and the duration of the calls was classified roughly in two: 100-500 ms and over 1000 ms. Frequency of the calls per animal between each call was classified in two patterns: 4-6 s and 23-45 s. We applied the phase difference analysis to dugong calls recorded by a stereo hydrophone. The preliminary results suggested that the acoustical analyses on the dugong calls will be a powerful method to locate the vocalizing dugongs without any impact on them at all.

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