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## **OBSERVATION OF FISH OCCURANCE AND DENSITY AROUND SEAGRASS USING UNDERWATER TELEVISUAL SYSTEM**

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### **Abstract**

Seagrass ecosystem plays significant role in protecting coastal area and in conserving biodiversity of many species. However, lately this ecosystem showed persistent sign of degradation, both its physical condition as well as its biological diversity. It is, therefore, important to continuously monitor the condition of this precious ecosystem. In this paper we describe the newly develop system for underwater observation and illustrate its application in seagrass ecosystem. The underwater televisual system is developed based on video camera system, where the recording of the images/videos can be stored in the form of data logger installed underwater near the video-camera or transmitted via cable to the storage system on the nearby land. The length of the recording time was controlled via pre-program computers that was installed in electronic box. To illustrate the performance of the televisual observation system we have installed and operated the system in Teluk Bakau, Kawasan Konservasi Lamun, Bintan, where the system run for 6 hours and recording of the underwater images every other hour for the duration of 15 minutes of each hour. The system was capable recording the underwater condition, namely the occurrence and density of fish during the observation time, without running out of battery. Thus, it can be concluded that the newly develop underwater televisual system has successfully carried out its task. This system has a great potential to be applied for a more broader application related to underwater observation.

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