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Short Communication

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Living Condition of Hard Corals at Buyat Bay, Southeast Minahasa Region, North Sulawesi Province, Indonesia

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Abstract

The living condition of hard corals is one of the important components of establishing the coral reef ecosystem. The coastal area of Southeast Minahasa Region, North Sulawesi Province belongs to the ocean of east Sulawesi (North, Southeast and South) which is known as the largest coral reef region in Indonesia. From 2008 to 2014, monitoring of collected data has been conducted in May and September each year at six permanent stations: Station A and B in Totok Bay, Station D in Dakokayu Island, Station E in Buyat Cape, Station F in Buyat Bay, and Station C in Hogow Island as the reference station. The average number of species and the average percentage of living hard coral cover, which were monitored in May and September at 3 and 10 meter depth, showed very insignificant difference. The average number of species and the percentage of living hard coral cover in station B at 10 meter depth were respectively 7.50 and 8.50 species as well as the percentage cover of 57.63% and 57.81%. On average, the highest number of species was in station D and E at 3 and 10 meters depth monitored also in May (northern monsoon), and September (southern monsoon) which has quite a high frequency of waves. The average diversity index of species (H'log) in station B at 3 meter depth during seven years monitored in May and five years monitored in September, showed that the average diversity index of species was at 1.22 and 1.49 (H'log ≥ 1.00), while in station B 10 meter depth, the average diversity index of species (H'log) was at 0.80 with the average of dominance index (D') respectively at 0.40 and 0.44. The diversity index of species of the life hard coral in station D, E, and F at 3 meter and 10 meter depths at Buyat Bay were the highest (H'log ≥ 1.54) as monitored in May and September.

Biography:

Magdalene Irene Umboh has completed her PhD from Paris Sud University, Orsay, Faculty of Biology. In 1980, she was the Manager of Forest Biology Program. And then in 2000, she became the Head of the Research Department at University of Manado, Indonesia until 2012. Currently, she works for the Research Scientific Panel of Indonesia and is responsible for the Coral Reef and Fish division.