Oceanography-2013
International Conference on
Oceanography
August 21-23, 2013 Orlando-Florida, USA

Coral bleaching in Ratatotok Peninsula and its surroundings area, South-east minahasa, north Sulawesi province, Indonesia (a 15 years monitoring data)

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Abstract

Ratatotok Peninsula and its surrounding areas are integrated to South-East Minahasa District of North Sulawesi Province, Indonesia. 15 years hard coral and sea surface temperature data were collected respectively. In 1997, 2000 and 2010 the surface temperature was noted to rise about 2 – 3 degree of Celsius. The total coverage of hard corals was declined or tent to decline during those years. Although several other causes, i.e. bombing, poisoning, netting and *Acanthaster plancii* predation, were found also as reasons for coral destruction, bleaching events that occurred in 1997, 2000 and the latest one was occurred in 2010 could be blame as major factor that ruined the reefs in these area. Nevertheless, not all hard corals were affected. Compared to other Indonesian reef which were also affected by coral bleaching, most of coral genera attacked in this study area was the dominant genera, such as *Acropora* (at Ratatotok Peninsula and Hogow Island) and *Galaxea* (at Ratatotok Peninsula). It was very obvious that the bleaching events in those years were corresponded by increasing sea temperature. Sea temperature data were collected by using CTD (Conductivity, Temperature, Depth) data logger. However, after several months, it seemed that almost all of coral suffered from bleaching were survived. Strong current was probably the main key for the corals to survive from those bleaching events.

. Biography

Lalamentik is Dean of the Faculty of Fisheries and Marine Science at Sam Ratulangi University Indonesia. Graduated in 1985 at Sam Ratulangi University and has Master Qualication at Facolta di Scienze, Universita Politecna delle Marche, Ancona, Italy in 2004. Since 1985 work on coral reef ecology.