

Release of coral mucus by *Acropora* corals and its influence on the heterotrophic bacteria

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Coral mucus production rate by *Acropora nobilis* and *A. formosa* and degradation of the mucus by heterotrophic bacteria were investigated at Bidong and Tioman Island, Malaysia. Mucus release rate for *A. nobilis* was on average $38.7 \text{ mg C m}^{-2} \text{ h}^{-1}$, of which 69% consisted of dissolved organic carbon (DOC) and 31% particulate organic carbon (POC). The mean production rate of coral mucus by *A. formosa* was $31.0 \text{ mg C m}^{-2} \text{ h}^{-1}$, of which 53% consisted of DOC and 47% POC. In the mucus degradation experiment, seawater-mucus mixtures were incubated and compared with control runs for 24 hrs. Bacterial abundance in the seawater-mucus mixture increased significantly and coincided with a decline in DOC concentration. In controls, bacteria and DOC did not significantly change. The coral mucus had a high content of inorganic phosphate. It is suggested that the coral mucus rich in DOC and phosphate can induce the high bacterial growth.