DIVERSITY OF BUTTERFLY FISHES AND ITS RELATIONSHIP TO CORAL COVER AT BIDONG ISLAND

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Diversity of butterfly fishes and its relationship to coral cover at Pulau Bidong / Corliean Saitem.

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DIVERSITY OF BUTTERFLY FISHES AND ITS RELATIONSHIP TO CORAL COVER AT BIDONG ISLAND

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LIST OF ABBREVIATIONS

LIT:	Line Intercept Transect
SCUBA:	Self-Contained Underwater Breathing Apparatus Diving
SPSS:	Statistical Package for the Social Sciences
UMT:	Universiti Malaysia Terengganu

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ABSTRACT

A study on diversity of butterfly fishes and its relationship to coral cover was conducted at Bidong Island. A total of 110 individuals of Chaetodontids were recorded and from these individuals, three species were identified. The species were *Chaetodon octofasciatus* (100), *Chelmon rostratum* (9) and *Coradion chrysozonus* (1). *C. octofasciatus* was the dominant species observed in the transects, followed by *C. rostratum* and *C. chrysozonus*. From this finding, there were two groups of corallivores butterfly fishes recorded, which were obligate corallivore (*C. octofasciatus*) and facultative corallivores (*C. rostratum* and *C. chrysozonus*). It has been suggested that due to the close association between butterfly fishes and corals, these coral reef fishes could serve as indicator organisms. Even thought there were some hypothesis indicated that butterfly fishes and coral cover were related however, based on this study which was done at Bidong Island, there were no correlation between numbers of butterfly fishes and coral cover observed ($P > 0.05$). The presence of Chaetodontids correlated to the health and condition of reefs areas. However, the result obtained from this study showed that butterfly fishes were not suitable to serve as indicator for reef health at Bidong Island.

Kepelbagaian Ikan Bagang dan Hubungannya dengan Permukaan Karang di Pulau Bidong

ABSTRAK

Satu kajian tentang kepelbagaian ikan bagang dan hubungannya dengan permukaan karang telah dijalankan di Pulau Bidong. Berdasarkan kajian ini, sejumlah 110 individu ikan bagang telah direkodkan dan daripada jumlah tersebut, tiga spesis ikan telah dikenalpasti. Tiga spesis ikan tersebut adalah *Chaetodon octofasciatus* (100), *Chelmon rostratum* (9) dan *Coradion chrysozonus* (1). *C. octofasciatus* adalah spesis paling dominan dijumpai di sepanjang transek, diikuti oleh *C. rostratum* dan *C. chrysozonus.* Daripada kajian ini, dua kumpulan koralivor ikan bagang telah dikenalpasti, iaitu obligat koralivor (*C. octofasciatus*) dan fakultatif koralivor (*C. rostratum* dan *C. chrysozonus*). Telah dicadangkan bahawa dengan adanya hubungan antara ikan bagang dan batu karang, ikan ini dikatakan boleh menjadi organisma penunjuk. Biarpun terdapat hipotesis yang mengatakan ikan bagang dan permukaan karang adalah berkait rapat, namun kajian yang dilakukan di Pulau Bidong menunjukkan bahawa bilangan ikan bagang dan permukaan karang adalah tidak berkolerasi ($P > 0.05$). Kehadiran ikan ini akan menentukan kesihatan dan juga keadaan batu karang di kawasan karang. Namun, daripada kajian ini, ikan bagang tidak sesuai dijadikan sebagai organisma penunjuk kepada keadaan karang di Pulau Bidong.