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A comparative prevalence study of ectoparasite in wild and cultured grouper before and after transportation / Mohd Ihwan Zakariah.



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A COMPARATIVE PREVALENCE STUDY OF ECTOPARASITES IN WILD AND CULTURED GROUPER BEFORE AND AFTER TRANSPORTATION

By

Mohd Ihwan Bin Zakariah

Research Report submitted in partial fulfillment of The requirements for the degree of Bachelor of Science (Marine Biology)

Department of Marine Science
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PENGAKUAN DAN PENGESAHAN LAPORAN PROJEK PENYELIDIKAN I DAN II

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LIST OF ABBREVIATIONS

Ci Cryptocaryon irritans

Ts Trichodina sp.

Uc Unidentified ciliates

Ps Pseudorhabdosynochus sp.

Za Zeylanicobdella arugamensis

Cs Caligus sp.

% Percentage

± Plus-minus sign

μm Micrometer

mm Millimeter

N North

E East

0 Degree

Minute

" Second

ABSTRACT

Twenty wild groupers (Cephalopolis boenak) and 20 cultured groupers (Epinephalus tauvina) are used as the main research material in this study. All of these groupers were examined before and after six hours of transportation. The result of this study showed that the four groups of ectoparasite that infected both groups of fish were of six species namely Ciliated Protozoa; Cryptocaryon irritans, Trichodina sp., and Unidentified Ciliates. Monogenea; Pseudorhabdosynochus Zeylanicobdella arugamensis and Parasitic Copepod; Caligus sp. Unidentified Ciliates is the dominant species which infects both of the groups. Cultured groupers showed an increase in ectoparasite after transportation. Overall comparison showed that cultured groupers maintained the prevalence of ectoparasite before and after transportation with 100% infections; mean intensity showed an increase from 7.1 before to 37.4 after transportation compared to Wild Grouper with the prevalence of ectoparasite; 65% infection before and 95% infection after transportation and mean intensity; 3.2 before and 5.1 after transportation. Water quality was suspected as the main factor for this increased of ectoparasite infection.