

**DISTRIBUTION AND ABUNDANCE OF ECTOPARASITE
AND ITS RELATIONSHIP TO BODY SIZES OF CAGE
CULTURE FISH (*Epinephelus fuscogutatus*) IN
THE REHABILITATION POND**



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ABSTRACT

DISTRIBUTION AND ABUNDANCE OF ECTOPARASITES AND ITS RELATIONSHIP TO BODY SIZES OF CAGE CULTURE FISH TIGER GROUPER (*Epinephelus fuscogutatus*) IN THE REHABILITATION POND

Infestation by parasites often results in negative effects to the fish. This will cause the hosts incapacitated and if leave unattended will affect the business of cage culture fishes. As future preventive measure, a study on the distribution and abundance of ectoparasites on the surface of tiger grouper, *Epinephelus fuscogutatus* was conducted at Ko-Nelayan rehabilitation pond, Tuaran. The study aims to assess the distribution and abundance of ectoparasites according to body parts and its relationship with the body sizes. The sampling of ectoparasites was done by scrapping the mucous on different parts of body and observed under compound microscope immediately. There were 10 ectoparasites belong to 8 classes found on the surface of the tiger grouper fishes which are Trematoda (*Miracidium Schistosomatium douthiti*), Protozoan (Unidentified Protozoans), Cestodes (*Unitubulotestis sardae* and *Eutetrarhynchus lineatus*), Monogenea (*Cemocotyle carangis* and *Dionchus agassiz*), Didymozoida (*Atalostropion sardae*), Copepod Crustaceans (*Lernaea cyrinacea*), Branchiura (*Argulus sp*) and leeches (*Zeylanicobdella arugamensis*). The highest distribution of ectoparasites on the surface of the tiger grouper fish is *Miracidium Schistosomatium douthiti*, Trematode accompanied by the unidentified Protozoans. The lowest distribution and abundance of ectoparasites are at the gills and it is significantly different compared to the distribution and abundance of ectoparasites on other body parts of the tiger grouper fish and the highest distribution and abundance of ectoparasites is at the caudal fin. There was a strong positive correlation in the distribution and abundance of ectoparasites according to the body sizes, which means the distribution and abundance of ectoparasites does not depend solely on size, although the mean number of distribution and abundance of ectoparasites in big-sized fish is greater than small-sized fish. It is suggested that the cultured fish that transferred to the rehabilitation pond should be placed in a short period only since the ambience of the rehabilitation pond is different than the natural cage in order to avoid stress on the fish which will cause ectoparasites to influence the fish health.