

## SUMMARY

Red snapper (*Lutjanus bitaeniatus*) is one type of demersal fish that has high economic value. Red snapper is a type of demersal fish from the family of Lutjanidae that has important economic value in Indonesia (Marzuki and Djamal, 1992). Red snapper is a fish with the high economic value that vulnerable by parasitic disease. Parasites are organisms that live on or inside other organisms, take food from the organism in to breed (Subekti and Mahasri, 2010).

The presence of anisakis in the body of the fish can reduce the quality and economic value of red snapper (Muttaqin and Abdulgani, 2013). This makes red snapper unhygienic and sterile, as well as reducing eligibility for consumption, because fish are exposed to anisakiasis which makes it allergen when the worm is still alive eaten by humans.

This research using 60 samples of red snappers obtained from East Java seawaters. The research purpose is to analyze the correlation between physical parameters and parasitological index of metazoan from red snapper (*Lutjanus bitaeniatus*) in East Java. This type of research is survey research. The design of this research is cross-sectional research, the sampling technique by observational.

This research result is, metazoans that infects 31 red snapper (*Lutjanus bitaeniatus*) in East java from all 60 red snapper are derived from the Nematoda phylum which is divided into two families, namely Anisakidae and Raphidascarididae. The worm species is *Anisakis* sp. , *Hysterothylacium* sp., *Terranova* sp., and *Pseudoterranova* sp. Total metazoans found were 136 metazoans

larvae, with a total mean abundance of 2 metazoans larvae per fish, and a total mean infection rate of 4 metazoans larvae per fish, and the total prevalence was 51.67%. The results of the study note that it can be seen that the greater the physical parameters of red snapper (*Lutjanus bitaeniatus*) the higher the rate of metazoan infection with a strong correlation coefficient.

**The Correlation Between Physical Parameters and Parasitological  
Index of Metazoan from Red Snapper (*Lutjanus bitaeniatus*)  
in East Java**

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**ABSTRACT**

The research purpose is to analyze the correlation between physical parameters and parasitological index of metazoan from red snapper (*Lutjanus bitaeniatus*) in East Java. This type of research is survey research. This research using 60 samples of obtained from East Java. The first step was sampling, followed by measuring the physical parameters. The next step was red snapper necroption, and then identifying larva with a natif method and carmine coloring which was observed with light microscope 100x and drawn by microscope camera lucida, and the last step are make parasitological index of metazoan and data analyzing. The results of the study explain that it can be seen that the greater the physical parameters of red snapper (*Lutjanus bitaeniatus*) the higher the rate of metazoan infection with a strong correlation coefficient.

**Key words** : Red Snapper, Physical Parameters, Infection, Metazoan.

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