

**MOLECULAR IDENTIFICATION of *Anisakis* sp. ON LITTLE TUNA
(*Euthynnus Affinis*) USING SEQUENCING METHODS**

ABSTRACT

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Anisakis sp. is a nematode parasite which cause problems for animal and public health. The aim of this research is to identify the species of *Anisakis* using sequencing method. Four samples of Larva stage 3 *Anisakis* sp. were collected from seven little tunas and have characteristics like white colour, a booring tooth on the anterior, a simple digestive tract of the esophagus, ventriculus, small intestine, and a mucron in the posterior, which determined that four samples were *Anisakis* type 1. Specific primers of the mtDNA COX2 gene (211F and 210R) were used for DNA amplification (*Polymerase Chain Reaction*) and DNA Sequencing (with length 629 bp). The positive result of the PCR method (TS6 sample) was sequenced. The results of the sequencing method were compared with the DNA sequences reference KF3566652.1, JX648323.1, KC928269.1, KY065297.1, KT822145.1, KT439380.1 and KC342895.1, indicating that the TS6 sample had a 98% similarity with adult *Anisakis typica* isolated from Fraser dolphins (*Lagenodelphis hosei*) in Philippine waters (KF3566652.1).

Keywords: *Anisakis typica*, little tuna (*Euthynnus affinis*), molecular identification, PCR, sequencing.