

**IDENTIFICATION OF MORPHOLOGICAL
CHARACTERISTICS OF *Anisakis spp.* AND ITS
PREVALENCE ON SWORD FISH (*Xiphias gladius*)**

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ABSTRACT

Aim of this study was to identify the morphological characteristics of *Anisakis spp.* and its prevalence on Sword fish (SF) (*Xiphias gladius*) in FAO zone 57 (Indian Ocean). SF were examined and 320 parasites were collected from infected SF. Morphological examinations of formalin fixed parasites were carried out under light and stereo microscopes. Photographs were taken with a digital camera. Statistical analyzing was done by Minitab 15 software. Mainly one clade of *Anisakis spp.* on SF was identified at the genus level using morphological characteristics. These round worms are slender, elongated and cylindrically shaped. Total body length of was 20.00 ± 8.00 mm. Dead larvae were yellowish color. Live larvae were white or cream color. Their globular head consists of a boring tooth and triangularly shaped mouth that surrounded by three lips. Longitudinal grooves with ridges are appeared on the outer surface of the body. The tail end is blunt and acquires a mucron. They had transversely striated, thick, smooth cuticle. Mostly L3 larvae of *Anisakis* Type 1 *spp.* infected body location on SF was belly flaps. Prevalence (6.93%) and mean intensity (1.45) of L3 larvae of *Anisakis* Type 1 *spp.* on SF was low. Freezing fish at -20°C for a minimum of 5 days, smoking the fish at temperatures $>65^{\circ}\text{C}$, marinating or salting the fish for 10 days, adequately cleaning fish were the control measures for parasites on SF.

Key words: Sword fish, *Anisakis spp.*, morphology, prevalence, FAO zone 57.