Abstract

As the population grows, the need for more fish is needed. Many species of fish are a potential source of common parasites between humans and fish. One of the important diseases between human and fish is Anisakiasis . The parasitic agent of this disease is the larval stage of the Anisakid family nematodes, including *pseudoterranova* and *Anisakis.* In this study, *Epinephelus* fish, one of the commercial fishes of the Oman Sea, has been studied in terms of the presence of Nematodes of Anisakid family.

A total of 150 pieces of fish were purchased in small, medium and large sizes from a Factory in the city of Chabahar. After fish biometry and fish weighing for the presence of Anisakida nematodes، 26 nematodes were isolated from the 15 obdominal area *Epinephelus* fish. For morphological study, each nematode sample was first clarified with lactophenol. Then it was examined using an optical microscope. After morphological examination of these nematodes, they were first extracted from DNA. Subsequently, using partial primers, a partial cytochrome oxidase genes of 710 bp were introduced into the PCR reaction. Finally, the amplified piece was sequenced .After the sequencing , eight of the nematodes was *pseudoterranova*, it was identified from the Anisacidae family of nematodes. The parasite was recorded in the gene bank with the accession number of MK317965 and its phylogeny tree was drawn. This nematode was first isolated from the Oeman Sea.

Keywords: *Epinephelus* fish, Anisakide, Nematode, *pseudoterranova*, PCR

University of Zabol
Graduate School
Faculty of Veterinary
Department of Pathobiology

The Thesis Submitted for the Degree of Master of Science

(In the field of Veterinary Parasitology)

Title:

Morphological and Molcular analysis of Nematoda (*Anizakidae*) in, *epinephelus* of Oman Sea

Supervisor:
Dr.Reza Nabavi
Dr.Mohammad Rahnama

Advisor:
Fatemeh Naseri

By:
Mohammad Afzali

2019