



University of zabol

Graduate school

Faculty of veterinary medicine

The Thesis Submitted for the degree of Master of Science

(Parasitology of veterinary medicine)

Title:

**Study of the helminthes fauna of cage-cultured fishes (European Sea bream and Barramundi) in hormozgan province- Iran**

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## Abstract

Due to the importance of the Persian Gulf and its fish in the supply of animal protein, the study of pathogens of these fish, including parasitic factors, is of particular importance. The economic as well as health importance of common diseases between humans and animals is one of the considered factors in this research. Sampling was done randomly and 200 pieces of fish including Asian sea bass and European sea bream were collected from fish breeding site in Qeshm and Bandar Lengeh and the samples were transferred to the veterinary laboratory of Hormozgan province with ice. Worm parasites isolated in 70% ethanol were stained and identified. In this study, all the fishes were farmed in cages and were physically healthy. Out of 100 fish studied, 70 (70%) were infected with *Anisakis* parasite. The prevalence of infection among the studied fish with 95% confidence ranged from 0.60% to 78.8%. The prevalence of infection among sea bream and sea bass fish with a 95% confidence interval ranged from 95% to 1.8%. No parasitic infection was observed in all the studied fish (100 Asian sea bass and 100 European sea bream). This parasite belongs to the nematode branch, *Cesrenentae* genus, *Ascarididae* order, *Anisacidae* family and genus *Anisacidae*. *Anisakis* parasites are identified by the shape of the esophagus, which has two areas, one before the abdomen, which is muscular, and the other is in the abdomen, as well as the absence of a cecum and three lips around the mouth. The average severity of infection in *Saurida tumbil* fish was 1.3 parasites or cysts per infected fish. The average severity of infection with 95% confidence ranges from 2.3 to 3.9 parasites per fish. Chi square sonpear statistical test showed that the prevalence of *Anisakis* parasite infection in different parts was not statistically significant ( $p = 0.553$ ). Also, ANOVA test showed that the mean of *Anisakis* infection severity in different parts was not statistically significant ( $p = 0.978$ ).