

## **A survey on health status of marine fish in bandar imam station**

Mina Ahangarzadeh- Hossein Houshmand- Niazmohammad Kor- Farahnaz Kianersi- Sara sabzalizadeh- Mojtaba zabayeh najafabadi- Lefteh Mohseninejad

### **Abstract**

Mariculture is one of the most important sub sector fisheries industry in Asia-pacific region. There are over 40 marine fish species commonly cultured, such as groupers (*Epinephelus* spp.), snappers (*Lutjanus* spp.) and Asian sea bass (*Lates calcarifer*). But this industry in southeast Asia experienced serious disease problem since the late 1980s. Khouzestan province has a coastal line about 200 km with many Creek and suitable area for mariculture. Marine fish culture in khouzestan province in floating net cages was successfully initiated in Ghazaleh Creek following development of *Epinephelus coioides* artificial seed production in the 1372. This study has been conducted since 1384 to 1387 in Bandar-e-Imam station. The aim of this research project was to determine the health management status in cage and hatchery, identification of marine fish pathogens (Bacteria, Fungi and parasite), examination of heavy metal in cages sediment and test the physico chemical factors of water in cages and hatchery. Different parts of broodstock's body and fingerlings including intestine, gills, and body surface were examined. In this study, 18 Genus and species of bacteria such as *Vibrio alginolyticus*, *Vibrio anguillarum*, *Vibrio splendidus*, *Vibrio vulnificus*, *Plesiomonas shigelloides*, *Aeromonas hydrophila*, *Aeromonas caviae*, *Pseudomonas* sp. Were diagnosed. Also 7 Genus and species of fungi such as: *Aspergillus niger*, *Aspergillus flavus*, *Aspergillus fumigatus*, *Penicillium* sp. And *Fusarium* sp. Were isolated. In this survey following of disease appearance parasites such as ; protozoans *Amyloodinium* sp. And *Trichodina* sp. In *E.coioides* and *Acanthopagrus latus* and *Sparidentex hasta*, monogean such as *Benedenia* sp. In *E.coioides* and *S. hasta*, isopoda probably *Nerocila* sp. In nasal cavity of *E.coioides* and copepods such as: *Caligus* sp. And *Lernanthropus* sp. In *A.latus* and *S.hasta* were identified. In this study, microorganisms (bacteria, fungi and parasites) isolated from three different marine fishes species, were reported for the first time in Iran. The range of the physico-chemical parameters of water in cages were: DO(5.42-10.24 ppm), BOD5 (1.51-10.24 ppm), No2(0.0197-0.89 ppm), No3(3.53-11.93 ppm), Po4(0.965-6.05 ppm), turbidity ( 4-58 NTU) and ammonia ( 0.0008-0.03 ppm). According to the results parameters such as nitrate, nitrite and turbidity were found more than standard levels. Heavy metals: Ni and Pb relatively high observed.

**Keywords:** marine fish, bacteria, fungi, parasite, heavy metal, physico-chemical parameters of water.