The Importance of Dissolved Oxygen Changes in fish Cage culture located in Hormozgan Province (Qeshm Island)

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Abstract

Marine cage aquaculture industry has been rapidly expanding in the world for the reason of the marketability, good water quality, less problem of land supply in the coastal lines and less production costs. There are important non-biological factors in the cage that can have significant effects on the amount of production. The aim of this study is determination of dissolved oxygen effect on the fish production in cages (*lates calcarifer*) located in the south of Qeshm Island, Hormozgan province in 2017. Dissolved oxygen was measured on a monthly basis from near the bottom to water surface, at 3 stations including center of cage establishment (S1), end of cage establishment (S2) and 1000 m distance from cages (S3) as control. The lowest average of dissolved oxygen was in S_1 and the minimum concentration of dissolved oxygen (3.3 mg / L) was observed in station 1 at the end of the culturing period. The main reason for the reduction of oxygen levels in the study area were the increasing of organic load, type of substrate, plankton blooms, reduction in water flow and increasing in the amount of biomass

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