



## **The Effects of indigenous probiotics mixture with quorum quenching characteristics on growth performance, feed utilization and health status of Asian seabass (*Lates calcarifer*)**

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### **Abstract**

The present research was conducted for 100 days at Bandar Imam Khomeini marine fish research station. The bacteria with probiotic potential that applied in this research including: group 1: different *Lactobacillus plantarum*, 2.the mix of the first bacterial group and mix of *L. bulagaricus*, *L. acidophilus* and *L. ramosus* and the third group was including the mixture of groups 1 and 2 as well as mixture of bacillus bacteria with quorum quenching properties *Bacillus cereus* and *B. thuringiensis* that was isolated from gut of Asian sea bass that was cultured in fresh, brackish and salt water. With three probiotic groups, 4 treatments were designed including control: diet was coated with physiological serum, diet 1: feed was sprayed with the first mixture of bacteria, diet 2: feed was sprayed with the second mixture of bacteria and diet 3: feed was coated with the third mixture of bacteria. Fish fed with diets 1, 2 and 3 had higher weight gain percentage than the control and the best feed conversion ratio was seen in fish fed diet 1. Hematological parameters in fish fed probiotic-supplemented feeds were remarkably improved compare to the control. Overall, according to the results, continuous feeding of Asian sea bass with mixture of indigenous probiotics mixture and especially those with quorum quenching characteristics is suggested.

**Keywords:** Marine fish, immunostimulant, feed conversion ratio, hemoglobin, white blood cell