



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 Bacteriology)**

Title:

**Isolation, Identification and Investigation of Vibrio
luminescent from Shrimp Hatchery and Cultured in
Chabahr**

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Abstract

Aquaculture is one of the fastest parts of food production that accounts for more than 50 % of the world's production. One of the biggest threats for sustainable aquaculture is existing and emerging pathogens. The most serious problems in the hatchery are seen in the shrimp, where luminescence vibrio cause up to 100 % in Mysis and the post larvae.

This study was conducted with the aim of isolating and identifying luminescent bacteria from shrimp breeding and reproduction centers in Chabahar. Sampling of water and post-larvae was done during the months of December, January, February and March from breeding centers and shrimp farms. Sampling was done from 10 tanks and 10 different pools. The samples were cultured in the laboratory after preparation. A number 27 luminescent bacteria from shrimp reproduction centers were separated from larvae posts. The 17 luminescent bacteria were separated from the water of the breeding center. During the studied months, no luminescent bacteria were isolated from shrimp farms, but 33 luminescent bacteria were isolated from the water of shrimp farms. By examining the results of biochemical tests of these bacteria, *V. campbellii* was diagnosed. After sequencing and bioinformatic analysis, *V. campbellii* bacteria was introduced, which was registered in the World Gene Bank with the accession number PP193903.

Keywords: *Vibrio campbellii*, breeding center, shrimp farm, luminescence