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Molecular Studies on Some Gram-Negative Bacteria in Fish

Thesis Presented BY

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ABSTRACT

The study evaluated the presence of some Gram negative bacteria from 50 *Oreochromis niloticus* and *50 Clarias gariepinus*; collected from freshwater fish ponds of different sizes and weights from different localities at Kafrelsheikh Governorate. 70 isolates were obtained from the internal organs of examined fish and identified by the conventional microbiological methods. (2 isolates of *V. alginolyticus*, 2 isolates of *V. fluvialis* and 1 isolate of *V. parahaemolyticus)* , were furtherly identified by PCR. The 16S rRNA gene specific for the genus *Vibrio* was investigated. Virulence associated genes of *V. parahemolyticus* isolate were investigated for *tdh, trh* and *tlh*; *V. alginolyticus* for *toxR , col* gene and *ompK*. and *V. fluvialis* for *toxR*, *vflu* and *vlh* genes. Also, by using PCR for both *V. alginolyticus* and *V. parahemolyticus* **,** share *trh* gene. Antibiotic sensitivity test(14 discs) of the isolated *Vibrio spp*.(11) were carried out and showed the high percentage of Pencillin and Nalidixic acid resistance(100%). In contrast the highest sensitivity to Ciprofloxacin(90,9%) .The study showed the presence of multiple Vibrios in *O. niloticus*, raises the public health concern .

CONTENTS

List of Tables

List of Figures