

**Sudan University of science and technology**

**College of Graduate Studies**

**Effect of high level of ammonia concentration and  
oxygen consumption for Nile tilapia fingerlings on the  
Respiratory system**

**تأثير مستويات التركيز العالية للأمونيا وإستهلاك الاوكسجين علي  
اصبعيات اسماك البلطي النيلي في الجهاز التنفسي**

**A thesis submitted in partial fulfillment for requirement  
of the degree of Master of Science in Fish Technology**

**By**

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## **Dedication**

This thesis is dedicated to My mother and my Wife ,My child abu abeyda , My Brother (Mutasem –Sef Eldeen) and their family all my sister and their family