شبكة المعلومات الجامعية

# بسم الله الرحمن الرحيم


شبكة المعلومات الجامعية


# شبكة المعلومات الجامعية

# التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

# جامعة عين شمس

## التوثيق الإلكتروني والميكروفيلم

# قسم

## نقسم باللّه العظيم أن المادة التي تم توثيقها وتسجيلها
## علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

# يجب أن

## تحفظ هذه الأقراص المدمجة بعيدا عن الغبار


# بعض الوثائق الأصلية تالفة

شبكة المعلومات الجامعية


# بالرسالة صفحات
# لم ترد بالأصل

# PATHOLOGY OF THE TOXIC EFFECT OF SOME PHENOLIC COMPOUNDS ON CARP FISH

*Thesis Presented*

*By*

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## قرار لجنـــة الحكم و المناقشـه

قامت لجنة الحكم والمناقشة بفحص الرسالة و وجدت أن لها قيمة علمية حيث أنها اشتملت على بحوث هادفة. كما قامت اللجنه بمناقشة المتقدم مناقشة مستفيضة ووجدت أنه يلم الماماً كاملاً بكل ما جاء بها.

لـذ لـــــــــك

قررت اللجنـة مجتمعة ترشيح السيد ط. ب/ **مسعود السيد حسين الطبـاخ** للحصـول على درجة الماجستيرفى العلوم الطبية البيطريـة - تخصص باثولوجيا.

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# Introduction

# 1. INTRODUCTION

Fish is considered one of the most important and best source of animal protein for human consumption. During the last decades, the need for fish was increased due to the increasing price of the other sources of animal protein. Moreover common carp fish (*Cyprinus carpio L.*) is a cheap and popular species of fish that extensively farmed in Egypt.

Diseases of aquatic animals, particularly those of non infectious (toxic) origin represent the biggest hazards to these organisms and considered a major branch of the environmental pollution (water pollution). The disposal of sewage and industrial wastes into the fresh and brackish water surfaces is a common sanitary problem in different developed countries that lead to water pollution. In Egypt, recently the rapid development of industry, e.g. chemical industry, have created the contamination of the environment, especially of water surfaces. The presence of these pollutants led to many serious hygienic and economic problems. One of these problems is severe mortalities or, sometimes, disappearance of fish populations and other aquatic wildlife organisms of the polluted water. Regarding fish farms, the used water for fish farming may be also polluted leading to adverse effect on growth performance of fish as well as food poisoning to the consumer.

Phenol and its derivatives as cresol and xylenol are among the most toxic and ubiquitous environmental contaminants present in many industrial

wastes. Phenol and its derivatives arised from the distillation of coal and wood, oil refineries, chemical plants, livestock dips, human and animal wastes (sewage) and can also be released into water by aquatic plants and decaying vegetation ***(Hoak, 1956*** and ***Alabaster and Lloyd, 1982)***.

The mechanism by which the phenolic compounds induce toxicity to fish is either by direct irritation to gills and skin of fish or indirectly by their oxygen depletion properties due to their high oxygen demand. In addition, the intoxicated fish with such chemical pollutants exhibited undesirable flavours in the edible flesh of fish ***(Alabaster and Lloyd, 1982*** and ***Post, 1987)***.

Furthermore, phenolic compounds are not only harmful for fish but also for the consumer of intoxicated fish. Phenolic residue in the fish flesh may lead to a risk of stomach cancer in the consumer due to the genotoxic properties of these compounds ***(Ohshima et al., 1989)***.

In spite of the extensive study of phenolic compounds toxicosis in many fish species, the research concerning their toxic effect on common carp is relatively rare.

The aim of the present work is to evaluate the clinical signs, postmortem and histopathologic lesions associated with both acute and chronic toxicosis of common carp fish with either phenol or cresol.

# Review of Literature

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