بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%

بعض الوثائق الأصلية تالفه

بالرسالة صفحات
لم ترد بالاصل

Biological, Histological and Physiological Studies on The Slug "*Limax maximus*" of Economic Importance in Egypt

A THESIS SUBMITTED FOR THE AWARD OF THE PH. D. DEGREE

(Zoology)

By

OMAIMA MOHAMED MOSTAFA ABD-ALLAH

(B. Sc. & Ed. - B. Sc. - M. Sc.)

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Lecturer of Physiology, Biological Sciences and Geology Department, Faculty of Education, Ain Shams University

To

Zoology Department

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ABSTRACT

The present work is an attempt to investigate the effect of the chemical insecticides Cyanox and Osbac on adult slug, *Limax maximus*. The studies were carried out for the determination of both insecticides LD_{50} for 24 hours where two different doses were applied; $^{1}/_{10}$ and ¼ LD_{50} for four days. Biological studies including external features, radula, eggs (some of them were infected with nematodes) and mortality percentage due to thermal effects were achieved in the present work. Furthermore, the insecticidal treatment led to destruction of histological architecture and degeneration of tissues of the foot, digestive gland and hermaphrodite gland, as well as the ultrastructure of different stages of spermatogenesis which revealed some changes like cytoplasmic vacuolation and dilatation of smooth endoplasmic reticulum.

On the other hand, oxygen consumption was obviously increased under the effect of the two doses of insecticides, heart beats were significantly decreased and glycogen content of both foot and digestive gland of the treated slugs were highly significant decreased.

Electrophoretic bands of the non-specific esterase isozyme of the digestive gland of *L. maximus* were reduced from nine bands to seven bands of the specimens treated with low and high doses of Cyanox and were reduced from nine bands to seven and six bands, as a result of the treatment with low and high doses of Osbac, respectively.

Keywords: Pulmonata – Gastropoda – Limacidae – slug, *Limax maximus* – Insecticides – Biological – Histological – Physiological – Ultrastructural – Foot – Digestive gland – Hermaphrodite gland – Spermatogenesis.

CONTENTS