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بعض الوثائق الأصلية تالفة

TOXICOLOGICAL STUDIES ON THE CRUSTACEAN ANIMAL DAPHNIA - USING SOME INSECTICIDES

A THESIS SUBMITTED
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TO
THE DEPARTMENT OF ZOOLOGY
FACULTY OF SCIENCE - AIN SHAMS UNIVERSITY

IN PARTIAL FULFILLMENT FOR THE AWARD OF
THE MASTER DEGREE OF SCIENCE
(IN ZOOLOGY)

SUPERVISED
By

Dr. ABDALLA MOHAMED IBRAHIM
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ABSTRACT

In studying the acute toxicity of 14 different insecticides against the freshwater cladoceran fleas, *Ceriodaphnia quadrangula* and *Daphnia magna*, the insecticide Cyfluthrin showed the heighest toxicity, while Dimethoate exhibited the least effect.

The joint action analyses for 45 different insecticidal pairs indicated that most of their mixtures possess potentiation effects.

Sub-lethal concentrations of different insecticides tested were found to induce variable effects on daphnids heart beat rate. This has enabled us to propose a method for distinguishing between organo-phosphorus, carbamate and synthetic pyrethroid insecticides when be present in water, as contaminants, at very low concentrations.

In conclusion, the data obtained highlight the importance of daphnid crustaceans as bioindicators in aquatic toxicological studies .