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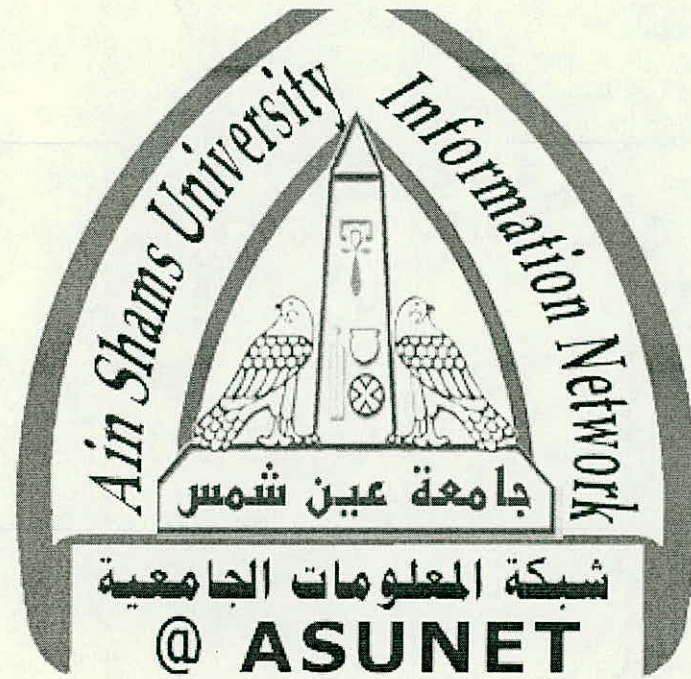
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بالرسالة صفحات

لم ترد بالأصل

Ecological Factors Affecting the Prevalence of Some Parasitic Infections among Elementary School Children in a Village in West Alexandria

Thesis

**Submitted to the High Institute of Public Health – University of Alexandria
in partial fulfillment of the requirements for the
Degree of Master of Public Health
(Parasitology and Medical Entomology)**

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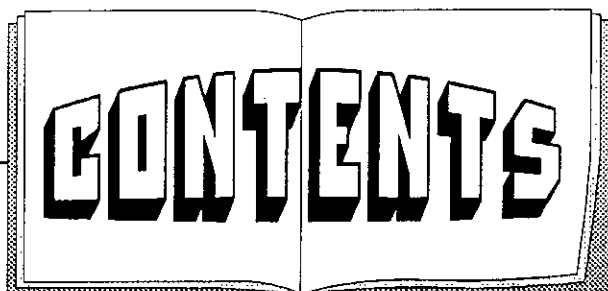
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INTRODUCTION

INTRODUCTION

For a long period Parasitology was dominated by morphological and systematic investigations. The realisation that it could be approached from an ecological stand point initially grew slowly, but now parasitology might be considered as only a special branch of ecology. Furthermore, attention has been focussed upon the ecology of parasitic life cycles, the population biology of parasites and the behavioral aspects of parasite transmission.

For understanding the ecological aspects of Parasitology the following definitions should be considered⁽¹⁾

1. Parasitism

Is defined as the case in which one partner, the parasite, of a pair of interacting species is dependent upon a minimum of one gene or its product from the other interacting species, defined as the host, for survival.

2. Mutualism

Is defined as the case in which each of the interacting species functions as both host and parasite.

3. Commensalism

Is defined as the case in which the interacting species have not evolved genetic dependency, but may do so in the future, thus becoming parasitism or mutualism.

4. Symbiosis

Is defined as a super-set term that includes the sub-sets commensalism, parasitism and mutualism.

5. Infectivity (I)

It may be expressed as: $I = \text{Host finding capacity of the parasite} + \text{susceptibility of host/resistance of host}$. Infectivity is important for maintaining a life cycle of parasitism.

6. Pathogenicity

$\text{Infectivity} * \text{number of parasites in host} * \text{damage to host/parasite}$.

7. Host specificity

Is defined as one taxon of parasite restricted to one taxon of host.

Therefore, specific hosts are defined as those that can supply the genetic information required by the parasite, and to which the parasites have access not supervened by innate resistance, ecological, geographical or similar physical barriers.

Parasites and the ecological factors affecting their transmission

Helminths

I. Trematodes

a. *Schistosoma spp*

Throughout the twentieth century, the major rural health problems in Egypt have been water-related.⁽²⁾ Schistosomiasis is considered the most