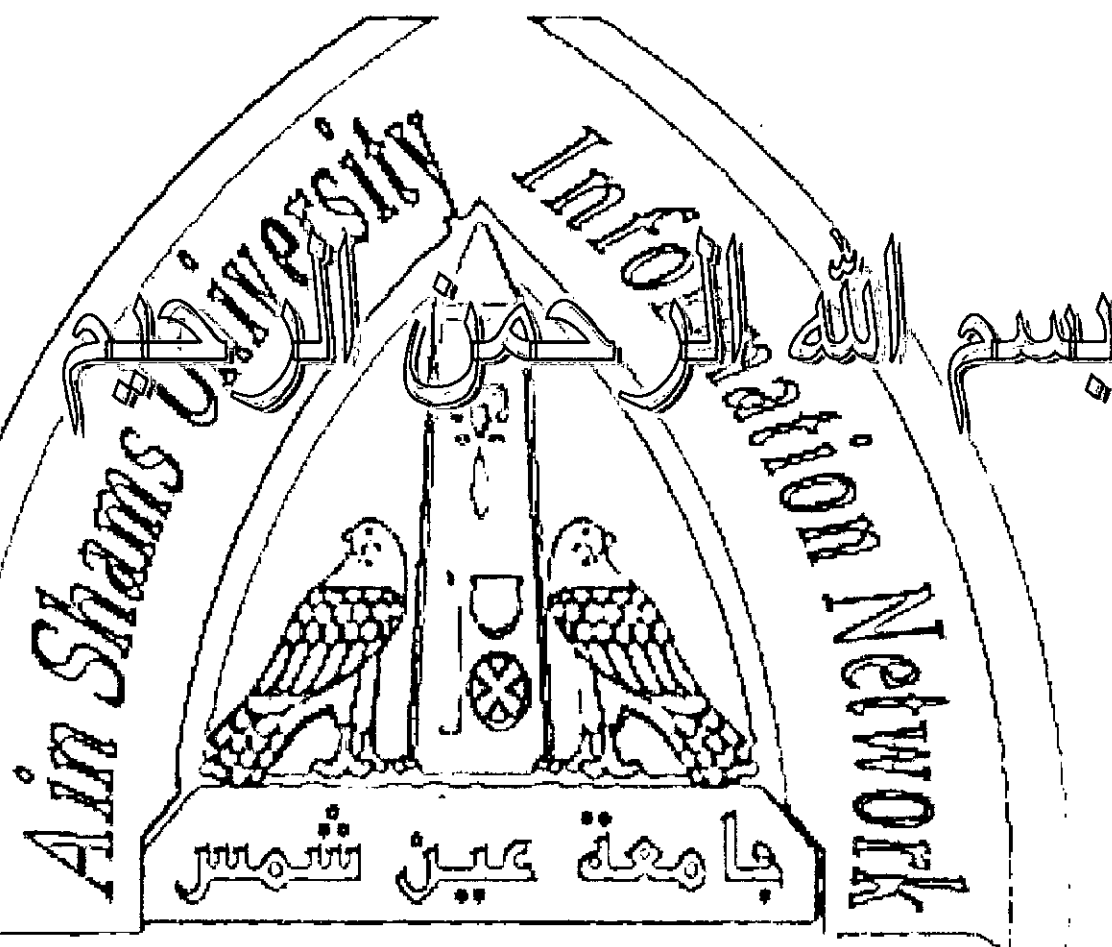




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COMPARATIVE STUDIES ON SCABIES IN SOME MAMMALS (BUFFALOES AND SHEEP) IN EL-MINIA GOVERNORATE

THESIS

*Submitted to the Faculty of Science, University of El-Minia
for partial fulfilment of the Requirements for the master's
Degree of Science in Zoology (Acarology)*

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1997

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Dedication

To my Parents

To my brothers

ACKNOWLEDGMENT

ACKNOWLEDGMENT

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***INTRODUCTION AND
LITERATURE REVIEW***

Many investigators owe their introduction into acarina to direct contact with the environmental conditions, such as agricultural workers who recognized the spider mites; many people who worked with stored products were at time aware of some mites that infest these products and produce an irritating itch, and dog owners also knew acarina by the mange producing mite that attack their dogs.

At the beginning, the small size of mites was the reason of the lack of informations about them, therefore mites studying were ignored from many zoologists and entomologists alike. On the other hand, some authors owe the lack of informations about mites in the past by considering that they have a relatively insignificant economic importance, but this was objected by others at that time and this objection is supported nowadays, where it was found that several groups of mites have a great economic importance which was unknown in the past, and recognized by the development of techniques and methods of study.

By the development of techniques and methods as mentioned, it was recognized that mites are almost found in all habitats available to animal life. They may be found in soil, water, desert, plants, hot springs,.....etc.

Due to the variation of mite habitats, they are adapted to live in different environmental conditions. According to the mode of life, Acarine can be distinguished into two main groups, free living and parasitic mites. The free-living mites comprise a vast complex represented in all mite suborders except Ixodida. The complex includes predaceous mites of infinite variety, mites which feed on plants or their derivatives, and others which utilize various organic substrates as food. Free-living mites may be

roughly categorized on the basis of habitat, although some families are represented in more than one category.

Regarding the parasitic mites it was found that it is a very big group. It is subdivided into external and internal parasitic mites. Internal parasitic mites are found among vertebrates and invertebrates. The vertebrate internal parasitic mites are members of the family Turbinoptidae which occur in the nasal passages and lungs of birds. Several mite species are also recorded as internal parasites for vertebrates, e. g. Rhinonyssidae and Gastronyssidae. The invertebrate internal parasitic mites are comparatively fewer than those of vertebrate ones. They may be exemplified by the monotypic genus *Entrohalacarus* (family Halacaridae), which was recorded as an internal parasite of deep-sea urchin at least in larval and nymphal instars (Viets, 1938).

The external parasitic mites were found to parasitize vertebrates and invertebrates. The invertebrate external parasitic mites are recorded among the members of the family Laelapidae which infest honey-bee larvae and had been observed to cause up to 50% mortality in severely infested colonies (Atwal and Goyal, 1971). Among vertebrates, it can be said that every animal specie has its complex group of acarine parasites. According to Nutting, (1968) various degrees of host specificity were recorded among vertebrate external parasitic mites. Ectoparasitic mites were isolated from most of vertebrates such as, reptiles, birds, marsupials, armadillos, bats and primates including man. They may feed on blood,