Summary

SUMMARY

It is well established that helminth parasites are amongst the most important etiological agents of fish diseases.

In Egypt, the study of helminth parasites of fresh-water fishes was received a good deal of attention by parasitologists working on this subjects. Also, the study of helminth parasites of marine fish have received a particular attention, but the studying of helminth parasite of fishes in lakes received less attention; Wannas, 1977 on Lake Nasser and Lamloom, 1987, on Lake Qarun and Wadi Al Rayyan.

The present investigation is concerned with a helminthological study of some of the common species of fish in three Egyptian Lakes, Manzallah, Edku and Timsah.

The thesis includes a general introduction and three chapters.

Chapter I deals with the general methods used in the present work including collection of fishes and their subsequent examination for helminth parasites. It also includes an account on the techniques followed in the fixation of helminth parasites and their subsequent preparation for the detailed morphological and taxonomical studies.

Chapter II includes the results of a general survey made on 1612 fish belong to 15 families, 18 genera and 18 species. The total incidence of helminth infections 714 (44.30%) belonging to twelve families, fifteen genera and fifteen species of these fishes, 656 (40.60%) were infected with trematodes, 23 (1.40%) were infected with cestodes, 59 (3.60%) were infected

with nematodes and 46 (2.8%) were positive for acanthocephala. The highest incidence of the helminth infections was recorded in *Serranus sp.* (93.5%) and *Saurus tumbil* (80.4%) while moderate incidence was recorded in *Oreochromis niloticus* (64.60%) and (47.3%) in *Chirocentrus dorab*. The lowest incidence (19.5%) in *Mugil cephalus* and (18.8%) in *Trachurus indicus*. The chapter also includes incidence of digenetic trematode genera in infected fishes collected from three lakes, incidence of trematode infections arranged according to the fish families as well as the host's sex and host specificity in species of fish.

Chapter III, includes a critical historical and systematic review of the trematode genera involved, together with a detailed assessment of the various views suggested by different investigators on the important-diagnostic features used in the specific identification of members of the genus. This is considered an important fundamental step in order to formulate a clear and sound policy for the identification of the various species involved. The chapter includes description of twenty five species of trematodes belonging to twenty genera and twelve families. Out of these, fifteen species are new to science while ten others are redescribed in detail, some of them being recorded for the first time from Egypt. The new species are: *Astiotrema oreochromae, cypseluritrem buckleyi, Genolinea gohari, Genolina roshdi, Hemiurus shalabyi, Lecithocladium chirocentri, Lecithostaphylus ismailensis, Myosaccium sardinellae, Plagioporus (Plagioporus) labraxae, Prosorhynchus aegyptiacus, Prosorhynchus nagatyi, Rhipidocotyloides labraxae, Uterovesiculurus serrani, Uterovesiculurus manteri* and *Bucephalopsis aqualae*.

The redescribed trematode genera belonging to Plagiorchiidae, Cryptogonimidae, Haplosplanchnidae, Masenidae, Acanthocolpidae,

Acantostomatidae, Opecolidae and Allocreadiidae. These are *Astiotrema sudanensis* Khalil, 1959 from Lakes Edku and Timsah, *Haplorchoides cahirinus* (Looss, 1896) Chen, 1949 from Lake Manzallah; *Haplosplanchnus pachysoma*, Looss, 1902 and *H. Indica*, Gupta and Ahmed, 1979 from Lakes Timsah and Edku, *Eumasenia aegyptiacus*, Mohamed, 1978 from Lake Edku; *Deropristis inflata* (Molin, 1859) Odhner, 1902 from Lakes Edku and Manzallah; *Acanthostomum (Atrophocaecum) aswanensis* Wannas, 1977 from Lakes Edku, Manzallah and Timsah; *Pseudoplagioporus*, Yamaguti, 1942 from Lake Timsah; *Podocotyle temensis* Fischthal and Thomas, 1970 from Lake Timsah, and *Orientocreadium batrachoids* Tubangui, 1931 from Lakes, Edku, Manzallah and Timsah.