

INTRODUCTION AND AIM OF THE WORK

The insecticides are now the most widely used pollutants in Egypt. Beside their wide use in agriculture, most-if not all, the Egyptian houses are polluted with them. The harmful effect of this group of chemicals is not only limited to their target organisms, the insects, but it also affects the human being and his economically important animals. This group of chemicals is also, expected to pollute most bodies in the country. Noxious effects of these chemical compounds on water environment are apparent in the disturbance in water ecosystem, among which the most visible sign is the death of fishes (Kolaczowski, 1970) and their food chain (Konig, 1964 and Breitig, 1966).

In Egypt, Tilapia has always been regarded as an important favorable fish (Hickling, 1963). A large number of reports indicated that insecticides affect animal reproduction (Ware and Good, 1969; Vashakidze, 1970; Well et al., 1972 and Saxena and Maju, 1979).

Many insecticides have been also proved to exert plentiful hazardous effects on the total protein content of different body organs in various animals (Sanchez, 1967 and Gabr et al., 1973).

Carbaryl insecticide or sevin is a member of the carbamate pesticides widely used as herbicides and as agricultural and house hold insecticides. It was found to contaminate the diet of man and his domestic animals, **(Duggan and Weatherwax, 1967)**. It was also reported as important pollutant of irrigation canals in Egypt **(Osman and Belal, 1980)**.

Their effect ranges from mild retardation of protein synthesis **(Grosch, 1975)**, up to being carcinogenic **(Quadles and Raymond, 1975)**. Some authors, however, considered some of them especially carbaryl, as safe insecticides **(Hayes, 1975)**. It was found to have a prominent adverse effect on the growth of ovarian follicles **(Boseila et al., 1979)** and process of spermatogenesis in the testis of rat **(Shtenberg and Rybacova, 1968)**.

The effect of carbaryl on the macromolecule content of animal tissue **(Oreochromis niloticus) including** ovaries, liver and muscle, however, has as far as we know, received no attention. This report is therefore, directed to such a study as a step towards understanding the mechanism of biological effect of carbaryl on the structure and histochemical composition of this fish.