SUMMARY

Pollution 1e one of the manor problems of the world water pollution is popular in Egypt. It was aimed to test the effect of water pollution on three of host parasite snails. Analyses of water samples from two localities indicated that El-Mansouria canal at Giza contained a markedly higher levels of physicochemical parameters and some heavy metals than that for El-Kased canal at Tanta.

- El-Mansouria canal at Giza showed that water temperature was 23.75 t 3.52 'C . dissolved oxygen was 6.47 t 1.21 ppm, pH-value was 7.55 ± 0.41. total hardness was 284.5 t 32.7 ppm, chloride concentration was 20.92 ± 1.68 ppm, phosphate concentration was 0.59 0.13 ppm copper concentration was 0.12 ± 0.003 ppm. zinc concentration was 0.07 ± 0.01 ppm, lead concentration was 0.46 ± 0.06ppm and cadmium concentration was 0.02 ± 0.003 ppm.

- El-Kased canal at Tanta showed that water temperature was 21.37 ± 3.78 °C, dissolved oxygen was 7.92 ± 1.87 ppm, pH-value was 7.25 ± 0.39, total hardness was 263 ± 31.9 ppm, chloride concentration was 17.42 ± 2.17 ppm, phosphate concentration was 0.58 ± 0.05 ppm, and heavy metals concentrations were 0.005 t 0.001 ppm copper, 0.02 ± 0.004 ppm zinc, 0.02 t 0.002 ppm lead. and 0.006 ± 0.001 ppm cadmium.

Biomphlaria alexandrina. Bulinus truncatus, and Lymnaea cailliaudi (Gastropods) were recorded to live in two localities in Egypt, exhibiting different degrees of water (quality. El-Mansouria canal at Giza and El-Kased canal at Tanta.

The effect of water quality on the prolonged spawning was also studied. The results can be summarized as follow:

- The mean level of activity of glutamate oxaloacetate transaminase of Giza water animals were 0.452 ± 0.003. 0.462 t 0.003. 0.536 ± 0.002 p mole/g tissue +or Biomphlaria alexandrina. Bulinus truncatus and Lymnaea cailliaudi, respectively. while that of Tanta water animals were 0.481 ± 0.003. 0.492 t 0.003. and 0.567 ± 0.002 p mole/g tissue.
- lhe mean level of activity of glutamate pyruvate transaminase of Giza water animals were 0.214 ± 0.002. 0.219 t 0.003. and 0.233 J.- 0.002 p mole/g tissue for Biomphlaria alexandrina. Bulinus truncatus and Lymnaea cailliaudi, respectively. while that of Tanta water animals were 0.237 ± 0.002, 0.251 ± 0.002, and 0.266 0.002 p mole/g tissue.
- The mean level of activity of alkaline phosphatase of Giza water animals were 0.255 ± 0.0005, 0.253 ± 0.001, and 0.3495 t 0.0005 Kind & King U/g tissue for Biomphlaria alexandrina, Bulinus truncatus and Lymnaea cailliaudi, respectively, while that of Tanta water animals were 0.298 ± 0.001, 0.294 t 0.001. and 0.397 t 0.0015 Kind & King U/g tissue.

0.002 .10 - Kind & King U/g tissue for Biomphlaria alexandrina, Bulinus truncatus and Lymnaea cailliaudi, respectively.

- Transferring Biomphlaria alexandrina, Bulinus truncatus, and Lymnaea cailliaudi from Tanta water to live in Giza water +or 90 days showed that:

- lhe mean level of activity of GOT of transferred animals were 0.477 t 0.th, 0.468 ± 0.01, and 0.558 t 0.01 p mole/g tissue for Biomphlaria alexandrina, Bulinus truncatus. and Lymnaea cailliaudi. respectively.

- The mean level of activity of GPT of transferred animals were 0.239 t 0.02, 0.230 t 0.01, and 0.254 ± 0.001 p mole/g tissue for Biomphlaria alexandrina, Bulinus truncatus, and Lymnaea cailliaudi, respectively.

- The mean level of activity of alkaline phosphatase of transferred animals were 0.278 ± 0.001, 0.287 ± 0.005, and 0.396 ± 0.002 Kind & King U/g tissue for Biomphlaria alexandrina. Bulinus truncatus, and Lymnaea cailliaudi. respectively.

- The mean level of activity of acid phosphatase of transferred animals were 2.785 ± 0.001, 2.790 ± 0.0015, and 2.885 t 0.0025 .10 - Kind & King U/g tissue for Biomphlaria alexandrina. Bulinus truncatus. and Lymnaea cailliaudi, respectively.

The results of the spawning indicated that, the mean number of laided eggs by snails of Giza water lower than that of Tanta water, also the hatchability decreased for the eggs laid in Giza water.

The hatchability of eggs laid in Giza water were 41.66 %, 57.14 %. and 50 % for Bulinus truncatus, Biomphlaria alexandrina and Lymnaea cailliaudi, respectively, while that of eggs laid in Tanta water were 86.66 %, 88.88 %, and 70 % for Bulinus truncatus, Biomphlaria alexandrina and Lymnaea cailliaudi, respectively.