Host – Parasite relationship in some fish parasites from Fayoum, Egypt

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Summary

During the present investigation 525 Fish were examined from both lake Qarun as Saline water habitat and Lake Wadi El-Raiyan as brackish water habitat in Fayoum Governorate , Egypt, 238 (45.3%) were found to be infested With different parasites. The examind fishes were 300 and 225 fish caught from Lake Qarun and Wadi El-Raiyan respectively. These Fishes includes, 119 *Mugil cephalus* and 181 *Liza Ramada* caught From Lake Qarun and 97 Tilapia Spp 43 *Clarias lazera*, 45 *Bagrus bayad* and 40 *Latus niloticus* caught From Lake Wadi EL-Raiyan, Helminth infection were reported in all fish species except in *Latus niloticus* while the protozoan infections Were reported in *Mugil Cephalus, Bagrus bayed, Clarias lazer*a and *Latus niloticus* only.

Seventeen parasitic species were identified and redescribed morphologically, they were Clinostomum sp, metacercariae (in *Tilapia nilotica, T. aurea* and *Clarias lazera*), *Acanthostomum Spiniceps* and *Acanthostomum abesconditum (Bagrus bayad), Haplosplanchnus caudatus, H. pachysomus, Dicrogaster contractus* and *Lecithobotrys* putrescence (*Mugil cephalus* and *Liza ramada*), *Neoechinorhychus* sp., *Trichodinae lepsii, T. putoracy, T. batala* and *Myxobolus* sp. (*Mugil cephalus), Acanthosentis tilapiae* (*Tilapia nilotica, T. aurea* and *T. galliaea), Paracamallanus cyathopharynx, Myxobolus* sp. and *Hennegyua* sp. (*Clarias lazera*) and *Henneguya* sp *(Latus nilatias).* Out of these seventeen parasites, one parasite (*Neoechinorhynchus* sp.) reported as a new locality record in Lake Qarun, Fayoum Governorate. Egypt.

It were recorded also, the prevalence, incidence , intensity of each parasite species in each host and seasonal incidence in addition to the investigations on the host- parasite relationship including the parasite occurrence and the host susceptibility.

In was obvious that the highest incidence of parasite inaction record in *Clarias lazera*_ 79% folbwed by *Bagrus bayad* (68.8%). It was obvious also that the peak of infestation was reported during winter reaching 80.4% followed by spring 41.59%, Summer (28.38%), While the lowest incidence was noticed during autumn(21.05%).

It was noticed that trematodes were predominant than other parasites where its incidence was 67.9% While acanthocephalan parasites showed 20.17% infection incidence as it considered to be the second predominant parasite after trematodes. Indeed, nematodes, parasites showed the lowest incidence 12.2%.

Among the examined fish species *Mugil cephalus* (9 species of parasites) and *Clarias lazera* (4 species of parasites) were the most fish species that harpour different species of parasites. The least fish species showing different parasitic species was *Tilapia galliaea* where it was only parasitized by *Acanthosentis tilapiae*.

Study the effect of the fish sex on the incidence of parasitic infestation had been carried out and it was found that male fishes generally were some what more Susceptible for parasite infestation (46.95%) than female ones (43.49%).