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Studies on Parasitic Infestations in Some Cultured Marine Fishes

Thesis

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Abstract

In the present study, 360 cultured marine fishes (*Dicentrarchus labrax*, *Sparus aurata*, *Mugil cephalus*, *Liza ramada*, and *Anguilla anguilla*) were collected from three farms in Diba triangle, over different year seasons. Fish and water samples were collected. Examined fish showed restlessness, air gasping, scales detachment, excessive mucous, emaciation and off food. Pale gills, friable liver, gastrointestinal tract congestion were revealed. Total prevalence rate of Parasitic infestation was 65.3%. Six protozoan genera namley *Trichodina (T. heterodentata and T. lepsii)* , *Epistylis*, *Amyloodinium ocellatum*, *Microsporidia*, *Apiosoma sp. and Ambiphrya ameiuri*, three monogenean(*Diplectanum*, *Pseudohaliotrema and Furnestinia echeneis*), one crustacea (*Caligus minimus*), unidentified digenetic metacercaria, three trematodes(*Timoniella*, *Bucephalus minimus and Saccocoelium*) and one nematode (*Conteracecum* larvae) were illustrated. The highest protozoan prevalace was in autamn and least in summer, while *C. minimus* and helminthes were highest in summer and least in winter. Water temperature and salinity were the most effective parameters influencing parasitic infestation. Histopathologically, infested fishes showed different degrees of fusion in gill lamellae. Encysted metacercaria were revealed in intestine, muscle bundles, kidneys and spleen with inflammatory cells infiltrations. *In vitro*, Vaccium 210® was effective against *Trichodina lepsii* and *Furnestinia echeneis* at 2.5 ppt concentration after 45 minutes and 60 minutes, respectively, and with 15 ppt concentration after 5 and 15 minutes, respectively. *In vivo*, 2.5 ppt and 10 ppt concentration of Vaccium 210® required 24 and 10 hours, respectively, to eradicate both *T. lepsii and F. echeneis*.

Key words: Cultured marine fishes, Parasitic infestations, Seasonal variation, Histopathology, Vaccium 210®, *In vitro* and *In vivo.*

Dedicated to……..

Spirit of My Father and My Mother

My Dear Husband Mohamed

My Beautiful Daughters Salma and Habiba

My Dear Sisters Faten and Basma

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