

ULCERATIVE DISEASE CONDITION IN GUPPY (*Poecilia reticulata*): A STUDY ON THE CAUSATIVE AGENT AND ESTABLISHMENT OF A TREATMENT SCHEDULE

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INTRODUCTION

Of the freshwater fish species exported from Sri Lanka, guppy (*Poecilia reticulata*) ranks the highest, around 67% by number in 2003. Occurrence of diseases in such fish would cause substantial economic losses and simultaneously the loss of export market. Thus, a disease problem can be a determinant factor in the world market, particularly since it is a live product where clean image is crucial. Therefore, it is vital to conduct studies on disease causing agents and possible predisposing factors, which enhance the spreading of the diseases and conducting treatment trials to eliminate the diseases found in guppy. This study was conducted to find out the causative agent of an ulcerative disease condition in guppy, possible predisposing factors that enhance the occurrence of the condition and to establish a suitable treatment schedule.

MATERIALS AND METHODS

Study was conducted in Sarani Aqua Exports and Imports Private Ltd., during the period of November 2004 to February 2005. Diseased fish were further investigated at the laboratories of Faculty of Agriculture and Faculty of Veterinary Medicine and Animal Sciences, University of Peradeniya. During the preliminary investigation, history on management practices, observation of fish, examination of gross external features and ectoparasites, skin and gill examinations and bacteriological, mycological and histopathological examinations were conducted (Stoskopf, 1993). At the second stage, antibiotic sensitivity tests (ABST) were carried out to find the sensitive antibiotics. A treatment trial was conducted with two antibiotics: Enrofloxacin, Furazolidone, and mortality of fish were recorded. Data were statistically analyzed using CATMOD procedure. Healthy fish were also infected with isolated pathogen to find out the disease-developing pattern.

RESULTS AND DISCUSSION

Disease had been newly introduced from a stock attained from another fish farm. None of the drugs normally used for treatments were effective. Histopathological examinations revealed that ulcerative lesions have destructed the skin. Destructed muscle fibers in underneath muscular layer showed that