

## Observations on infestations of *Piscinoodinium pillularis* in freshwater ornamental fish in some commercial aquaria in Sri Lanka

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### ABSTRACT

Sri Lankan ornamental fish industry frequently experiences considerable losses due to diseases. Diagnosis is essential in applying appropriate preventive and therapeutic treatments. In February, 2001, three commercial aquaria situated in the North Western province observed considerable mortalities in guppy fry, (*Poecilia reticulata*) fingerlings of koi carp, (*Cyprinus carpio*) and gold fish, (*Carassius auratus*). Therefore monthly random samples of each fish species were obtained from respective aquaria from February, 2001 to February, 2002 and were examined for the disease causing agent using the standard procedures. The disease causing agent was identified as *Piscinoodinium pillularis*, a dinoflagellate parasite. Microhabitats preferred by the parasite were skin, gills and fins. In heavily infected fish skin, fins and gills were massively covered with the parasite causing severe hyperplasia, haemorrhage and necrosis. Percentage prevalence was significantly higher ( $P < 0.05$ ) during December and January (100%, 80% and 84% ; 96%, 92% and 92% for guppy, koi carp and gold fish respectively) in comparison to that in the other months and 100% mortality was recorded in some nursery tanks of guppy in December and January. Mortality recorded in fingerlings of koi carp and gold fish varied between 48.5% and 82.3% in affected tanks with highest mortality recorded in January. Combined effect of continuous aeration, siphoning of sediments and increased water temperature is preventive while aqueous copper sulphate could be used as a treatment.