Abstract

Mycobacteriosis is a disease causing high economy loss for the ornamental fish industry. As there is no effective antibiotic treatment, farm management is the only way to control the spread of the disease. The aim of this study was to monitor the disease within the exportation group and gather data for a further epidemiological study. Samples including fish, water, feed and sediment were collected from six exporting farms every three months for two years. The samples were analysed by polymerase chain reaction followed by reverse cross blot hybridization, which has previously been proven to be a sensitive and accurate method of detecting and identifying mycobacteria in fish and its environmental samples. The result showed that fish were infected with mycobacteria at 60.7% and among these *Mycobacterium fortuitum* was the most common species found (27.8%). And from the group of fish species, the three highest infected fish species were Siamese fighting fish (68%), discus (66%) and oscar (62%). However, some evidences showed that fish were infected within the farm via feed (41%) and inlet water (49%).

Keywords: Mycobacteria, ornamental fish, polymerase chain reaction, reverse cross blot hybridization